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ELEMENTARY

GEOGRAPHY

BY

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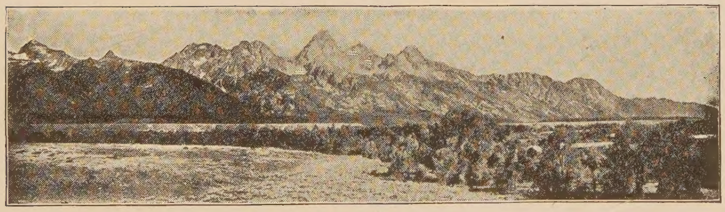

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PREFACE

EVERY text-book should be designed, first, to develop the child's mental power and grasp; second, to furnish his mind with knowledge; and third, to arouse and stimulate an interest in the subject of study. In an elementary book in geography, however, the chief object is to furnish such necessary fundamental conceptions as are absolutely essential to the child's mental life and growth. These concepts must be presented with no more detail than is necessary to keep the child's interest alive, and then be reënforced by constant and varied reviews. At the same time the facts of observation gained by the child in his everyday out-of-door life should be used, correlated, and systematized. In this way the child will be led to gain geographical knowledge both from the text-book and from nature.

In this book the endeavor has been to make easy the attainment of all these aims; and in order to adapt it for the widest range of practical usefulness, it has been prepared to meet the conditions existing in the average schools of this country.

No doubt the ideal text-book should present the subject of geography from the physiographic side; but experience has demonstrated that in a first book in geography it is not wise to include much geology or physiography as such. In this book, therefore, the physiographic element, while never neglected, is not made too prominent. Discussions of erosion, stream features, coast features, land forms, soil, etc., are presented in such simple and clear language as can be easily understood by children and illustrated by the teacher with pictures, models, and drawings.

In the text of this new geography the aim has been to present the essentials of the subject with as little detail as possible, to make each sentence clear and concise, and to frame the language to suit the capacity of the ordinary child.

The pictures illustrate the text, and are designed both to interest and to instruct the pupils and also to suggest supplementary subjects of study. Often an entire lesson may be given on a picture supplemented by pictures and objects which every live teacher has collected as aids in teaching.

The maps of coördinate divisions of the land are drawn on the same scale and thus enable pupils to compare accurately the relative size of countries. The questions on the maps have been carefully prepared, so that power in map reading and map interpretation may be gained commensurate with the capacity of the children using the book.

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E. P. 15

INDEX AND PRONOUNCING VOCABULARY

KEY.—VOWELS: ā in **lāte**, ă in **făt**, â in **câre**, ä in **fär**, ȧ in **lȧst**, a̤ in **fa̤ll**, ạ in **wạs**, a̱ in **fina̱l**, au in **author**; ē in **mē**, ĕ in **mĕt**, **bĕrry**, e̱ in **ve̱il**, ẽ in **tẽrm**, e̱ in **nove̱l**; ī in **fīne**, ĭ in **tĭn**, ï in **polïce**, i̭ in **basi̭n**; ō in **nōte**, ŏ in **nŏt**, ȯ in **sȯn**, ô in **fôr**, o̤ in **do̤**; ū in **tūne**, ŭ in **nŭt**, ṳ in **rṳde** (= o̤), ụ in **fụll**, **ua** = **wa**, **ue** = **we**; ȳ in **mȳ**, y̆ in **hy̆mn**. CONSONANTS: ç in **çent**, **maçhine**, ¢ in **¢an**; ġ in **ġem**, g̅ in **g̅et**; n̲ = **ng**, ɴ = **ng** but is silent; s̱ = **z**; th in **thine**; x̱ = **gz**. *Italic letters are silent.*

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ELEMENTARY GEOGRAPHY

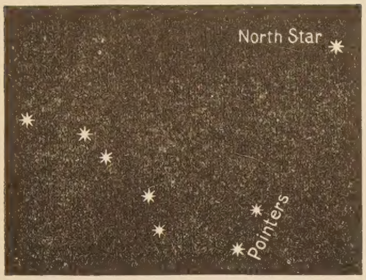
Geography. — In this book we are to learn about the earth on which we live. We shall learn about the shape, size, and motions of the earth; about the bodies of land and water which compose its surface; about the different countries into which the land is divided; about the plants, animals, and people that live in each country; and about the manner in which these people live, what they do, and how they travel from place to place. We call this study *Geography*.

I. DIRECTION AND DISTANCE

Direction. — In geography it is important to learn how to express the direction and distance of places from our home and from one another, in order that we may know where these places are.

Names. — The direction toward sunrise is called *East*. The direction toward sunset is called *West*. If you stand with your right side toward the east, and your left side toward the west, the direction before you is *North*, and the direction behind you is *South*.

Northeast is the direction between north and east; *Southeast* is between south and

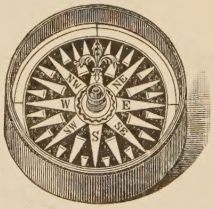


The Pointers.

east; *Southwest* is between south and west; and *Northwest* is between north and west.

North Star. — Travelers often find these directions from the North Star, which is always in the northern part of the sky. You can find the North Star any clear night by means of two other stars called the "Pointers."

The Compass. — Direction may also be found by the compass, which consists of a magnetized needle balanced on a pivot so that it can swing freely. Whichever way the needle is turned, it swings back and settles to rest in a nearly north and south direction.



Mariner's Compass.

Distance. — The distance across the schoolroom we may measure in *feet;* the length of the desk we may measure in *inches;* we may measure the school grounds in *yards;* and the field in *rods.* But when we travel from place to place on the earth, we reckon distance in *miles.* Thus we say it is ninety miles from Philadelphia to New York.

How long is a mile? Have you ever walked a mile or ridden twenty miles? What is the greatest distance you have traveled from home? In what direction was it?

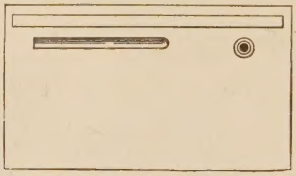
II. THE MAKING OF MAPS AND PLANS

Maps. — A *Map* is a kind of picture that represents the position of places and the distance between them. Maps show us the position, or location, of towns and cities; of mountains, rivers, and lakes; of the countries and seas; and of many other features of the earth's surface.

Maps representing a small surface are often called *Plans.*

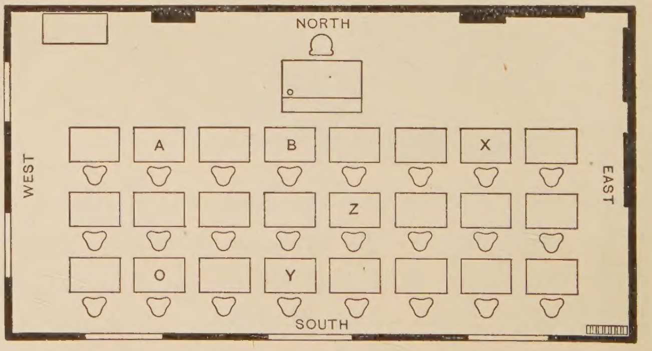
Scale. — Of course you all know what a picture is. You know that pictures are seldom as large as the objects they represent. They may be any size, as one fourth, or one eighth, of the length and width of the object. This we call the *Scale* of the picture.

Making Plans. — How many inches long is the top of your desk? How wide is it? Make a plan of it one twelfth of these sizes. If the desk top is thirty-six inches long and twenty-four wide, the plan will be three inches by two inches. Draw your plan exactly and show the position of the ink-well. The plan will look something like this.



Plan of Desk.

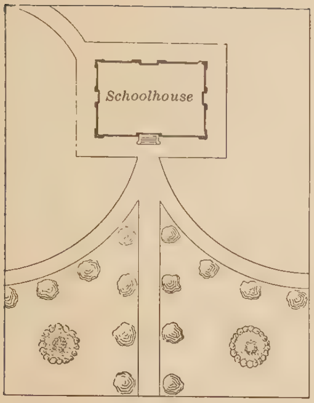
In the same way make a plan of the schoolroom. There are now more objects to be represented. The plan may look like this.



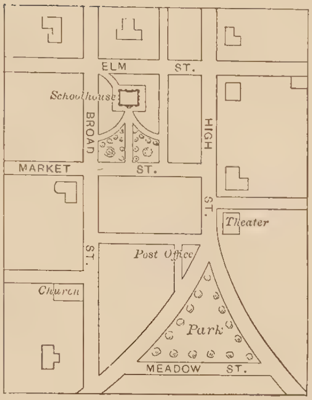
Plan of Schoolroom.

The north, south, east, and west sides of this plan are marked. Plans and maps are usually made with the north side at the top. What is the direction of desk A from desk O? from desk X? B from Z? Y from A?

By knowing our scale we can tell from the plan how far objects are from each other.



MAP OF SCHOOL GROUNDS.



MAP OF SQUARE OF THE TOWN.

Making Maps. — Let us next make a plan or map of the school grounds. Mark the north, south, east, and west sides. What position does the schoolhouse occupy? What direction is it from the gate? How far is it from the gate? from the school fence?

Now we are ready to make a map of the square of the town or of the fields bordering the school grounds. In order to make a good map we must carefully measure the streets and fences and find their direction.

Find out all you can from the maps given.

SLOPES.

A PLAIN.

III. PLAINS AND PLATEAUS

The Surface of the land is seldom perfectly level. It may seem so when we look at it, but when rain falls on it, part of the water usually flows away. We know from this that most lands have a *sloping* surface.

Plains. — A broad stretch of nearly level or gently sloping land is called a *Plain.* The surface of plains is seldom perfectly smooth and even. Often it is broken by slight depressions and elevations like a series of broad, low waves.

Plateaus. — A high plain is usually called a *Plateau* or *Table-land.* The surface of a plateau is usually more irregular and broken than the surface of low plains.

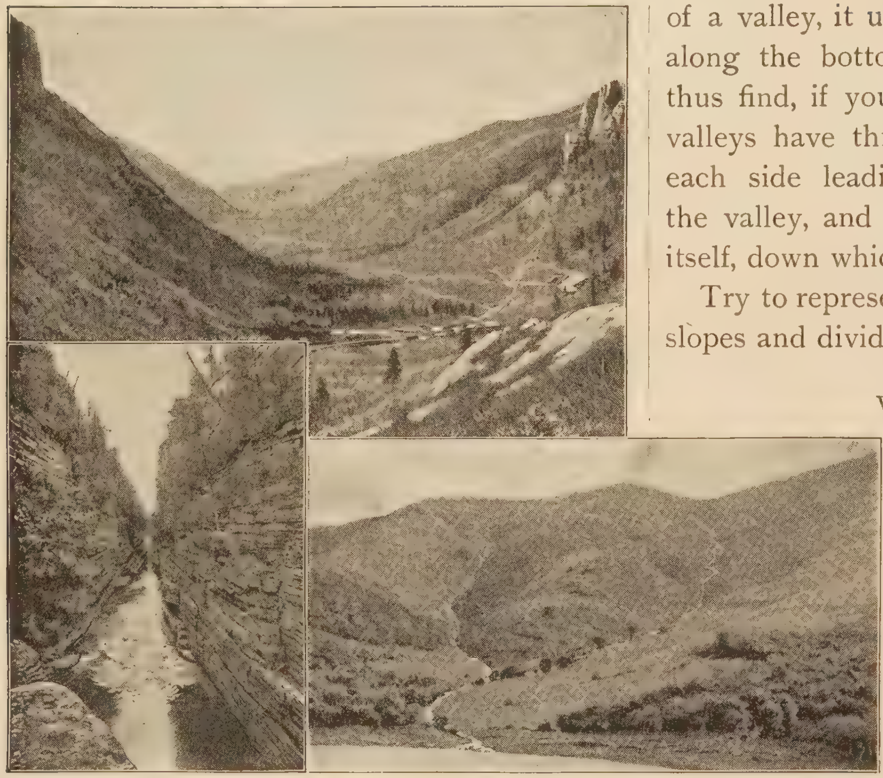
A DESERT.

Kinds of Plains and Plateaus. — Low, wet plains are called *Marshes* or *Swamps.* The frozen swamps in northern lands are called *Tundras.* Large plains, covered with grass, but having few or no trees, are sometimes called *Prairies* or *Steppes.*

Plains or plateaus with very few plants of any kind to cover their sandy or stony surface are called *Deserts.*

Occasionally there may be a spring or well in a desert, and around this grass and trees may flourish, forming an *Oasis.*

Plains densely covered with trees are in some places called *Silvas,* though the word simply means "forests."



A Gorge. A Valley. A Divide.

IV. HILLS AND VALLEYS

Hills. — Land somewhat higher than the surrounding country is called a *Hill.* In some regions the hills are high, with steep slopes; in other regions they are low and have very gentle slopes.

Divides. — When rain falls on the summit, or crest, of a ridge of hills, it is divided, part of the water flowing down one side slope and part down the other side slope. The summit where two slopes meet is therefore often called a *Divide.* The crest of every line of hills is a divide, but the summit where two gentle slopes meet in the lowlands is also a divide, because the rain water falling there is divided between the two slopes.

Valleys. — Two slopes meeting at their lower edges form a *Valley.* Narrow and deep valleys are called *Gorges* or *Canyons.*

When rain water flows down the side slopes of a valley, it usually flows away in a stream along the bottom of the valley. You will thus find, if you look closely, that almost all valleys have three slopes, — a side slope on each side leading down to the bottom of the valley, and a slope of the valley bottom itself, down which a stream flows.

Try to represent hills and valleys with their slopes and divides in a model.

V. MOUNTAINS

Mountains. — Very high and rugged elevations of land are called *Mountains.* Many mountains are so high that their tops are always covered with snow and are often hidden in the clouds.

Ranges or Chains. — A mountain *Range* or *Chain* is a long and narrow line of mountains. Some mountain chains are hundreds or even thousands of miles long. The direction in which a range extends is called its *Trend.*

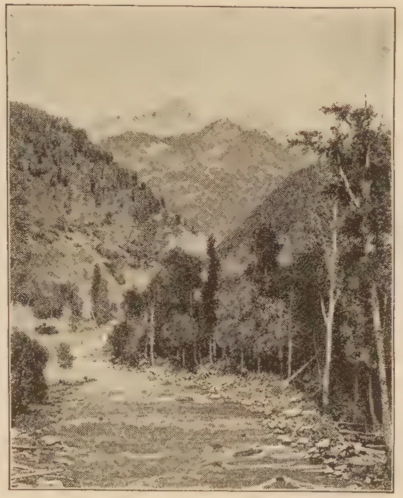
Mountain Systems. — Several mountain ranges often lie on an extensive plateau. Such ranges, together with the plateau, form a mountain *System.* The various ranges of a mountain system are usually nearly parallel.

Peaks and Passes. — The tops of mountain ranges are often quite uneven, like the jagged edge of a saw. In some places they rise into high points or *Peaks,* between which there may be low *Gaps* or *Passes.* For this reason a mountain range is sometimes called a *Sierra,* the Spanish word for "saw."

Volcanoes. — In many parts of the world are places where steam, hot stones, and even melted rock are thrown up out of the earth, often to a great height into the air. Such a place is called a *Volcano.*

The melted rock, even after it has cooled and become solid again, is called *Lava;* and the hole from which it was thrown out is called the *Crater* of the volcano.

Volcanic Peaks. — The stones and lava thrown up from a volcano fall back to the earth and cool, and thus a great mound or peak is gradually built up around the crater. Hence nearly every volcano lies on a mountainous peak which it has made. The crater is usually near the top of the peak.



MOUNTAINS.

Earthquakes. — In some parts of the world the ground, without apparent cause, at times trembles for a moment — sometimes so violently that houses are shaken down and even whole cities destroyed. Such a trembling of the ground is called an *Earthquake.*

Earthquakes may occur anywhere, but are most likely to occur in mountain regions or near volcanoes. An earthquake is thought to be the jar caused by the breaking and slipping of the deeply buried rocks, or by the explosions of volcanoes.

TEST EXERCISES FOR REVIEW

What are we to learn about in this book? What is this study called? Name some of the things included in this study.

1. Why are direction and distance important in geography? What are the four principal directions? How may they be found from the sun? from a star? What is a compass? How is distance expressed? What is the distance from your home to your schoolhouse? Did you ever count your steps and measure the length of one step?

2. What is a map? What is meant by the scale of a map? Where do we usually locate north, south, east, and west on maps? What must we know in order to draw a plan or map?

3. Is the surface of the land level? How may we know if it slopes? What is a plain? a plateau or table-land? What is a marsh or swamp? What are prairies or steppes? What is a desert? an oasis? What are plains covered with dense forests sometimes called?

4. What is a hill? What kind of hills is near your home? Describe a divide, and state why it is so called. Are divides always on hills? What is a valley? What is a canyon? How many slopes have most valleys? What are they?

5. What is a mountain? What is a ridge? range? chain? What is meant by trend? What is a mountain system? Describe peaks, and gaps or passes. Tell all you can about volcanoes. What is a crater? lava? What are earthquakes? How are they caused?

VI. SHAPE AND SIZE OF THE EARTH

Shape of the Heavenly Bodies. — The moon when it is full appears round. Though the sun is usually too dazzling to look at, we can often observe it safely in the morning and evening and on hazy days, and then we see that it is round like the full moon.

The stars appear so small that we can not tell their shape with the naked eye. Through a powerful telescope, however, the shape of some stars, or planets, can be determined, and these also are seen to be round like the sun and moon.

Shape of the Earth. — If we could visit the moon, the world on which we now live would appear like a heavenly body. It would seem round, but larger and brighter than the moon

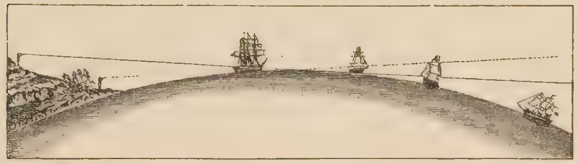
A VOLCANO (MT. ETNA).

does to us. We call the heavenly body on which we live the *Earth.*

Size of the Earth. — The earth is a very large ball. You know how long a mile is. The distance around the earth is 25,000 miles, and the distance through it is 8000 miles. It would take a very fast railroad train twenty-five days to go the distance round it.

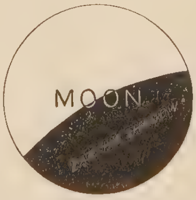
The earth seems flat to us because when we look around us we can see only a very small portion of its great surface. Any small portion of it *is* very nearly flat.

Proofs that the Earth is Round. — 1. When a ship sails away from the shore, it steadily disappears below the *Horizon* the place where the earth and sky seem to meet. The hull disappears first and the topmast last. This is because the surface of the water is not flat, but curved.



2. People have traveled round the world, starting from some place and keeping steadily in the same general direction until they arrived again at the starting point.

3. When the shadow of the earth falls on the moon in an eclipse, the shadow is always circular. Now, round bodies are the only ones that always cast circular shadows.



VII. LAND AND WATER

Elevations and Depressions. — We have learned that the surface of the land is not smooth and even. Hills, valleys, mountains, and plains diversify it, and make it irregular. Now, the whole surface of the earth is divided into high regions or *Elevations* and low regions called *Depressions.*

Land and Water. — The great depressions of the earth's surface are filled with water, which forms the *Sea.* The higher portions of the earth's surface rise above the sea and form the *Land.*

The earth's surface is thus made up of *land* and *water.* The land occupies about one fourth of the surface of the earth, while the water occupies three fourths.

Maps of the Hemispheres. — A round body like a ball is called a *Sphere.* The half of a sphere is a *Hemisphere.* The whole surface of the round earth is often represented by maps of its two opposite sides or halves placed side by side, as on pages 12, 13. As each of these maps shows one half of the earth they are called the *Maps of the Hemispheres.*

In these maps the white portions represent large bodies of water, and the shaded portions represent land. The names of the different parts of the land and of the sea are printed on or near them.

Continents. — The three largest masses of land are called *Continents.* They are named the Eastern Continent, the Western Continent, and the Australian Continent.

Grand Divisions. — The Eastern Continent comprises Europe, Asia, and Africa. Each of these is called a *Grand Division.* Europe and Asia together are called Eurasia. On the hemisphere map find what two grand divisions make up the Western Continent.

Islands. — Masses of land smaller than continents, and surrounded by water, are called *Islands.*

Most islands lie near the continents and are called *Continental* islands. Some islands, how-

CORAL.

ever, lie far from the continents, in the midst of the sea. Such *Oceanic* islands are either the tops of volcanoes projecting above the water, or are built of coral by little animals called *Coral Polyps*.

The Oceans. — The great body of water surrounding the continents is called the *Sea*.

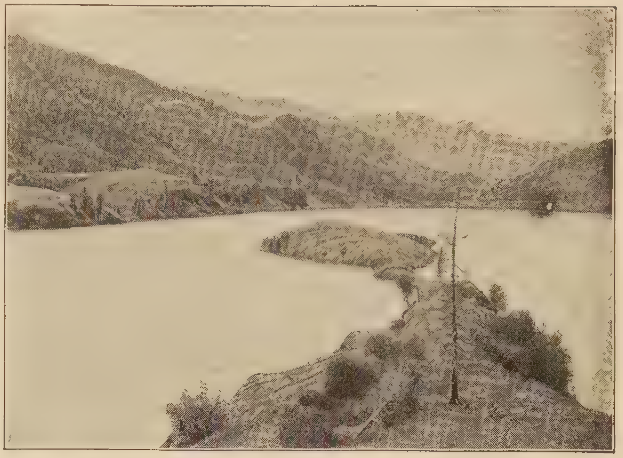
For convenience the sea is divided into five *Oceans*. These are partly separated from one another by the continents. The names of the oceans are the Atlantic, the Pacific, the Indian, the Arctic, and the Antarctic.

Map Exercise. — Study now the map exercise at the foot of p. 12.

VIII. COAST FORMS OF LAND AND WATER

The Coast Line. — The sea and land meet in a line called the *Shore Line* or *Coast Line*.

This line is crooked because the land is not level. Arms of the sea extend far up the low valleys, between which the higher parts of the land project far into the sea.



PENINSULA AND ISTHMUS.

Coast Forms of the Land. — A body of land projecting far into the water, and nearly surrounded by water, is called a *Peninsula*. The word means "almost an island."

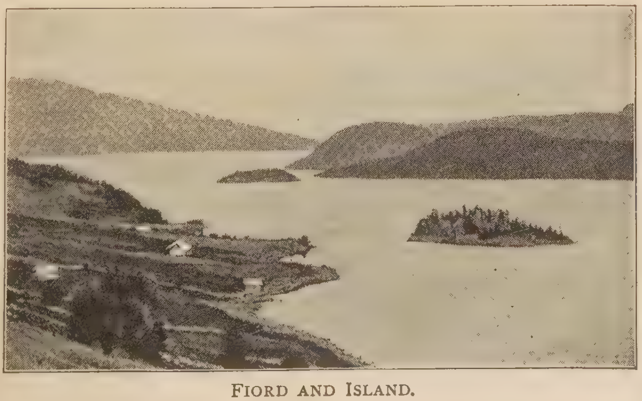
A narrow neck of land joining two larger bodies of land is called an *Isthmus*.

A small body of land jutting out into the water is called a *Cape*, *Point*, or *Headland*. A high, rocky cape is called a *Promontory*.

Coast Forms of the Water. — A large or deep body of water extending into the land is called a *Sea*, a *Gulf*, or a *Bay*.

A long, narrow bay, with deep water and high, steep shores, is often called a *Fiord* or *Firth*.

Small sheltered bays in which ships can anchor, form *Harbors*. Cities often grow up around good harbors.



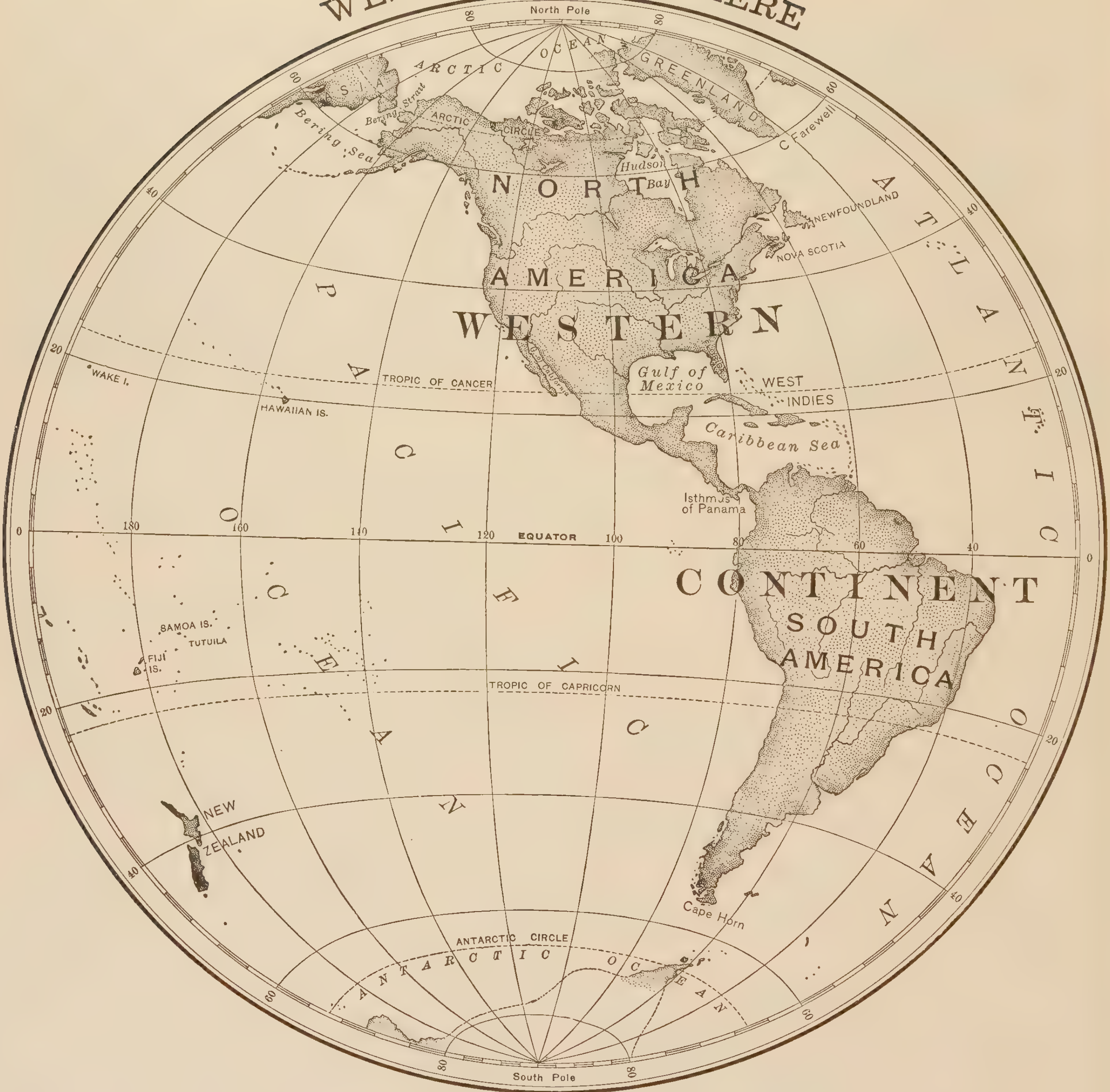
FIORD AND ISLAND.

Narrow passages of water connecting larger bodies of water are called *Straits* or *Channels*.

Broad, shallow straits are sometimes called *Sounds*.

Map Exercise. — Study now the exercise on p. 13.

WESTERN HEMISPHERE


North Pole
ARCTIC OCEAN
GREENLAND
ASIA
Bering Strait
Bering Sea
ARCTIC CIRCLE
C. Farewell
Hudson Bay
NORTH AMERICA
ATLANTIC OCEAN
NEWFOUNDLAND
NOVA SCOTIA
WESTERN CONTINENT
PACIFIC OCEAN
Gulf of Mexico
WEST INDIES
Caribbean Sea
TROPIC OF CANCER
WAKE I.
HAWAIIAN IS.
Isthmus of Panama
EQUATOR
SOUTH AMERICA
SAMOA IS.
TUTUILA
FIJI IS.
TROPIC OF CAPRICORN
NEW ZEALAND
Cape Horn
ANTARCTIC CIRCLE
ANTARCTIC OCEAN
South Pole
80
60
40
20
0
180
160
140
120
100
80
60
40
20
40
60
80

Map Exercise. — Find the continents on the maps (pp. 12, 13). How many continents are in the Western Hemisphere? How many are in the Eastern Hemisphere? By what are the continents surrounded? What oceans are north of the Western Continent? What ocean is east? What ocean is west? What one is north of the Eastern Continent? What one is west? What ones are east? south? What oceans border the Australian Continent? Where in the Western Continent is the grand division called North America? What grand division is southeast of North America? How many grand divisions are in the Eastern Hemisphere?

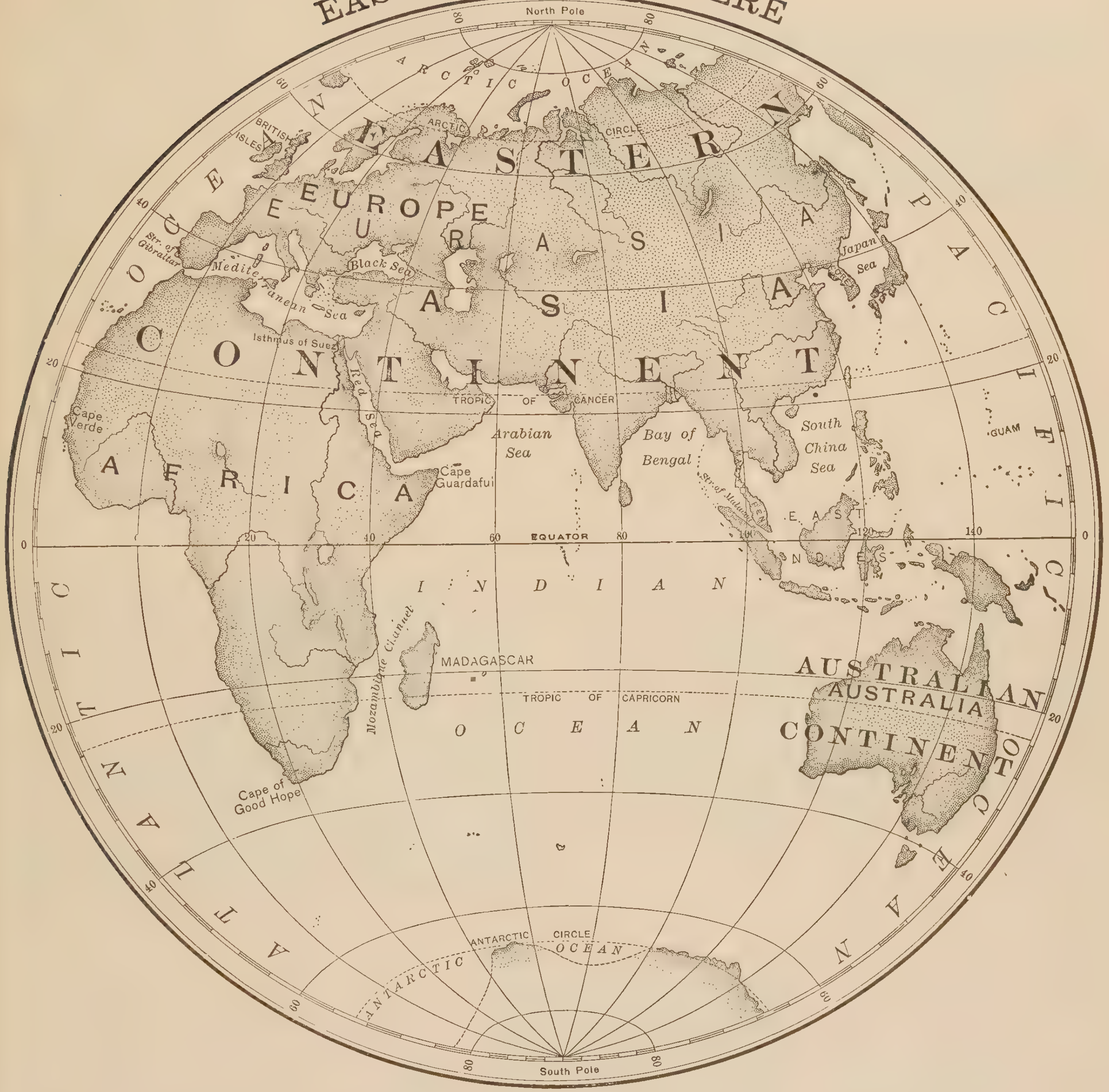
On what continent do you live? in what grand division of that continent?

Look at the map and find which is the largest ocean; the smallest; the largest continent; the smallest.

What islands are between North and South America? What island is east of North America? What islands are west of Europe? southeast of Asia?

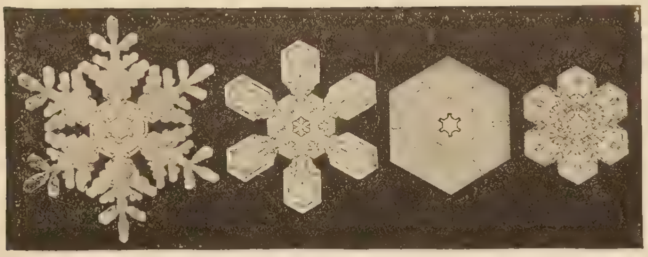
(Turn next to Lesson VIII, p. 11.)

EASTERN HEMISPHERE


North Pole
ARCTIC OCEAN
ARCTIC CIRCLE
BRITISH ISLES
EASTERN
EUROPE
EURASIA
ASIA
Str. of Gibraltar
Mediterranean Sea
Black Sea
Japan Sea
COREA
Isthmus of Suez
CONTINENT
Red Sea
TROPIC OF CANCER
Arabian Sea
Bay of Bengal
South China Sea
GUAM
Cape Verde
AFRICA
Cape Guardafui
Str. of Malacca
EAST INDIES
EQUATOR
INDIAN OCEAN
Mozambique Channel
MADAGASCAR
TROPIC OF CAPRICORN
AUSTRALIAN CONTINENT
AUSTRALIA
Cape of Good Hope
ATLANTIC OCEAN
PACIFIC OCEAN
ANTARCTIC CIRCLE
ANTARCTIC OCEAN
South Pole
0
20
40
60
80
100
120
140

Map Exercise. — Find the place where the Eastern and Western continents are closest together. What body of water separates them ? Find the place where the Western Continent is narrowest. What is the name of this narrow body of land ? Find the place where there is a narrow body of land connecting Asia and Africa. What is its name ? Find on the map bodies of land partly surrounded by water. Name some peninsulas. Find some peninsulas in North America. Find some points of land projecting into the ocean. Name some capes. Did you ever see a real island? a real peninsula? a real cape? Where is Cape Horn ? Cape of Good Hope ?

What body of water separates Europe from Africa ? What is the narrowest portion at the western end of this sea called ? Find some other straits on the map. Find some other seas on the map. Find a channel on the map. What body of water extends into the southern part of North America? Find some other gulfs on the map. Find a bay on the map. What large bay is south of Asia ? What large sea is south of Asia?



Snowflakes.

IX. WEATHER AND CLIMATE

Weather. — The condition of the air at any time, with regard to its heat, moisture, and motion, is called the *Weather.*

Climate. — The kinds of weather that are usual at any place constitute the *Climate* of that place. Thus we say that the climate of a place is hot or cold, wet or dry, changeable or equable, if the weather there is generally hot or cold, wet or dry, changeable or equable, throughout the year.

Winds are simply air in motion. They are caused by differences in the heat of the air at two places. The warmer air is lighter than the colder. Hence the cool and heavy air moves toward the warmer air, pushing it up and away. Thus the air is put in motion.

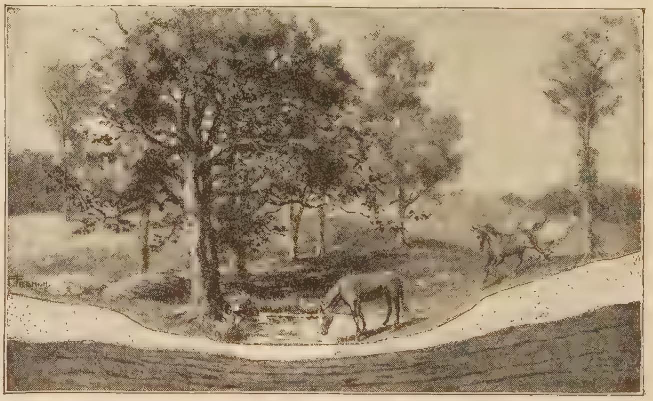
Vapor. — If a wet cloth is hung out in the air, it soon becomes dry. What becomes of the water that was in the cloth? It escapes into the air in particles so small that they can not be seen. Moisture in this form is called *Vapor.* It is lighter than air, and mingles with it. The change of water into vapor is called *Evaporation.* When water boils in a teakettle, it is evaporating rapidly, and disappearing as steam or hot vapor, but when wet clothes dry on the clothesline, the water in them evaporates more slowly and disappears as cold vapor. During warm, windy days a vast amount of water is evaporated from the sea.

Rain and Snow. — Warm air can hold much more vapor than cold air. Therefore, when air that is full of vapor is chilled, some of its vapor *condenses* or changes back to water again. The little particles of water unite to form drops which may fall as *Rain*, or they may freeze in uniting, and form the beautiful ice crystals we call *Snowflakes.*

Much vapor that rises from the sea is carried over the land to fall as rain or snow whenever the vapor is sufficiently chilled. In this way the land is watered.

X. WATERS OF THE LAND

Ground Water. — Some of the water that falls on the earth as rain or snow sinks deep into the ground. It is this *Ground Water* which supplies all wells.



A Spring.

Springs. — The water sinks into the earth until it reaches a layer of rock through which it can not easily pass. It then spreads out along the top of this layer, and creeps down its slope; and if the rock layer comes out to or near the surface, the water may flow out of the ground as a *Spring.*

Ground water creeps along the top of the buried rock layers *very* slowly. Other rains may therefore furnish new supplies of ground water before the old supply has run out. So some springs never become dry, while others cease flowing in dry weather.

Geysers. — The water of most springs is cool, but the water of some deep-seated springs is boiling hot. Some hot springs spout steam and hot water high into the air at regular intervals of a few minutes or a few hours. Such spouting springs are called *Geysers*.

A Geyser.

Streams. — The small stream of water flowing from a spring is called a *Rill* or *Brook*. The brook flows down into some valley and then down along the sloping bottom of the valley. As it flows onward, other streams join it and increase its size until it becomes a *Creek* and perhaps a great *River*.

A river may flow through the land for hundreds of miles, but finally it is very likely to reach the sea.

Thus you see that vapor from the sea falls as rain or snow upon the land. This water flows off or soaks into the ground and reappears as a spring. Through streams it reaches the sea again, and thus the round is completed. This goes on year after year.

Parts of a Stream. — The beginning of a stream is its *Source*. The place where it flows into a larger stream, or other body of water, is called its *Mouth*. The source of a stream is often a spring, but it may be a swamp or the perpetual snow on some high mountain side.

Stream Systems and Basins. — Streams which flow into larger streams are called *Branches* or *Tributaries*. A great river usually has many tributaries.

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A Brook.

A stream with all its tributaries forms a stream *System;* and all the land which slopes toward a stream or any of its tributaries is said to form the *Basin* of that stream.

Ponds and Lakes. — When a stream meets a dam or obstruction, through or around which it can not escape, its current is stopped and it forms a pool of still water. This pool is called a *Pond* if small or a *Lake* if large. Some lakes are several hundred miles long and so wide that you can not see across them.

The streams which enter a lake are called its *Inlets*. A lake generally has a stream flowing out of it also. This is called an *Outlet*.

A Lake.

Some lakes, however, have inlets but no outlet. The water of such lakes is very apt to be like the water of the sea — so salt that it is unfit to drink.

TEST EXERCISES FOR REVIEW

6. What is the shape of the sun, moon, and planets? What is the shape of the earth? How large is the earth? Why does it seem flat? How do we know it is round?

7. Is the surface of the earth smooth and even? What occupies the low places? What are the high places called? Is there more land or water on the earth's surface?

How much more? What are continents? Name them. What are the largest divisions of continents called? Name them. What is an island? What is one great difference between continents and islands? What can you tell about various kinds of islands? What is the great body of water called which surrounds the continents? How is it divided? Name the oceans.

8. What is the coast line? Explain why it is crooked. What is a peninsula? an isthmus? a cape? What is a sea, gulf, or bay? What is the difference between a fiord and a harbor? What is a strait? a channel? a sound?

9. What is the difference between weather and climate? What causes winds? What is vapor? evaporation? How does the air get its moisture? Explain where rain and snow come from.

10. Where does ground water come from? How are springs caused? Why do many flow constantly? What are geysers? Describe the gradual formation of a river. Where does the water of streams originally come from and where does it return? What is the source of a stream? the mouth? What is a stream system? a basin? What are ponds or lakes? What are inlets and outlets? How are lakes without outlet likely to be peculiar?

XI. EROSION OR WASTING OF THE LAND

Crumbling of the Rocks. — When the rain soaks into the ground or falls on rocks, it dissolves some parts of them just as water dissolves sugar. The grains that are left are loosened from one another and after a while the rock falls to pieces. This action goes on slowly but surely year after year.

Sometimes the water in the rocks freezes. In freezing, the water expands and often breaks the rocks apart. Have you seen pitchers or barrels burst by ice? Where the freezing and thawing occurs often, it loosens the soil and breaks the surface rocks into small pieces.

When rocks are heated by the sun they expand, and when cooled they contract. This action breaks off small pieces of the rocks; and water and frost make them smaller, until they become the fine, loose material that forms the surface of the land.

Rock Waste.

Rock Waste. — We may call all this fine material made by water, frost, and heat, *Rock Waste* or *Detritus.* It forms gravel, sand, and clay, and when mixed with partly decayed vegetable matter it forms *Soil.*

Because water and heat are always acting in some way upon the rocks, you might suppose that the rock waste becomes deeper each year. In some places the rock waste does become deeper each year, but in others it is carried away as fast as it is formed.

Removal of Rock Waste. — The wind carries much sand and fine rock waste with it as *dust.* Most of this is blown off the hilltops and into the valleys.

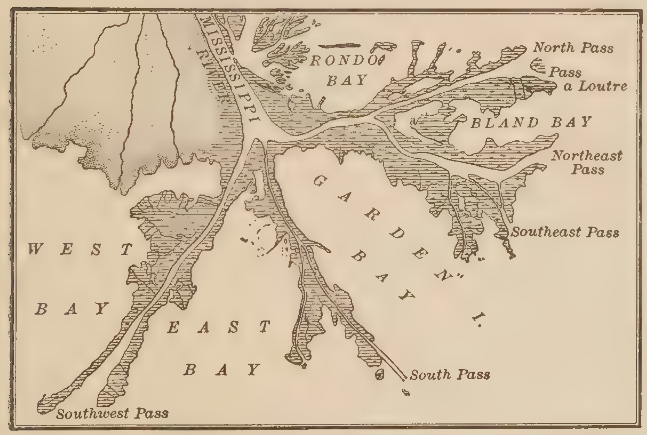
Running water removes much more rock waste than the wind. When rain falls, the little streams that form and flow along the roadsides and in the fields are muddy and dirty. If you look at them closely, you will see that the mud is mostly fine rock waste. They pick this up as they flow along, and it is washed into them by the rain. Sand and gravel are also pushed along.

The little streams carry part of their load into the creeks and rivers, and they in turn carry it onward to the sea.

How Valleys were made. — A stream carrying rock waste acts like a file on its bed. It thus files out a channel for itself even in the hardest rock. The swifter it flows, the faster it files, and the more rapidly it deepens its channel. Thus nearly every stream is constantly making its valley deeper, while every rainstorm makes the valley wider by washing rock waste from the side slopes. Nearly all the valleys in the world have been dug out in this way by the streams which flow in them, aided by the rains, frosts, and winds.

The materials torn from the stream bed are carried or pushed along until the stream reaches the lowland. Here, where the stream flows slowly, some of the rock waste is dropped, forming sand banks and mud flats. Thus is formed much of the soil of the rich grassy meadows and river plains. But in times of flood even parts of these river plains are washed away and carried downstream.

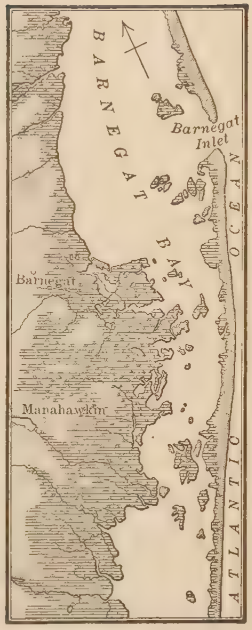
Erosion. — This wearing away of the land by streams, rains, frost, and winds is often called *Erosion*. By it every hill and mountain is being slowly wasted away.



A DELTA.

Deltas. — When the rock waste is deposited at the mouth of a river, it chokes up the mouth and forms a fan-shaped region of marshy land and shallow water called a *Delta*. The river is broken up by this deposit, and flows through it in several channels.

Barrier Beaches. — Long lines of sand banks are often formed outside a coast by the waves. These are called *Barrier Beaches*. On the side toward the mainland there is usually a shallow body of water called a *Lagoon* or *Sound*. Plants grow and decay in these lagoons, and rock waste is carried into them. Thus they slowly fill up and form swamps and finally solid land.



A BARRIER BEACH.

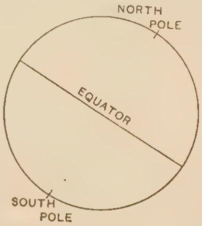
XII. THE SPINNING OF THE EARTH

Day and Night. — The sun gives light and heat to the earth. But the earth is round like a ball. Hence the sun shines on only half the earth at one time. The side of the earth upon which the sun shines has the light of day, while the side that is away from the sun is in shadow or night.

Spinning of the Earth. — Let us take a ball and place a long pin or needle through its center. Now hold it in the light of a candle, and slowly spin it on the pin. You see that half the ball is lighted and the other half is in shadow or darkness. You also see that, as we turn the ball, new parts come into the light, and others go into the shadow.

The earth spins slowly in nearly the same way, and this is why day and night follow each other, and why the sun appears to rise and set. Since the earth turns from west to east, the sun appears in the east and disappears in the west. It takes the earth a day and a night, or twenty-four hours, to turn completely around.

Axis and Poles of the Earth. — The imaginary line around which the earth spins is called its *Axis*. The axis points toward the North Star. The ends of the axis are called the *Poles* of the earth. The north pole is the end toward the North Star, and the opposite end is the south pole of the earth.


NORTH POLE
EQUATOR
SOUTH POLE

Equator. — The imaginary line extending around the earth halfway between the north pole and the south pole is called the *Equator*.

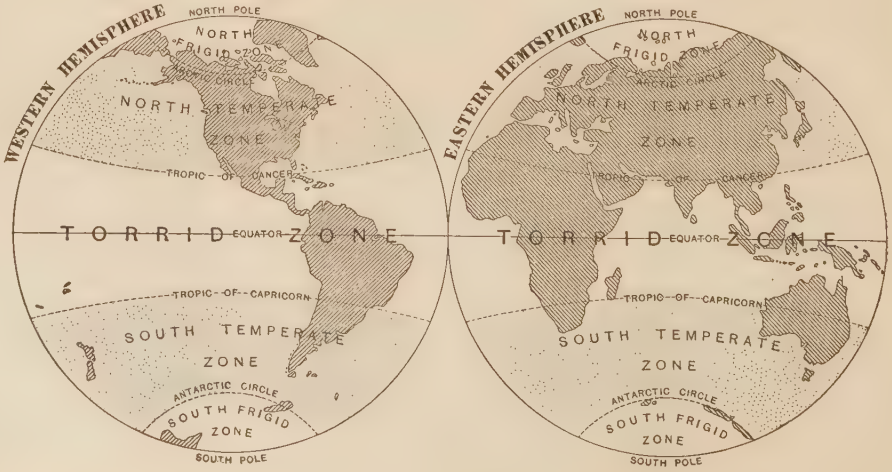
The equator divides the earth's surface into a northern hemisphere and a southern hemisphere.

Take a ball and mark on it in the proper positions two dots for the poles and a line for the equator.

XIII. ZONES

Zones. — You know that it is usually warmer at noon than in the early morning. This is because at noon the sun's rays fall from nearly overhead, while in the morning and evening they fall very obliquely or slantingly.

The only part of the earth's surface on which the sunbeams ever fall from *directly* overhead is the part lying near the equator. The sunbeams fall more and more obliquely the nearer a place is to the poles. In the neighborhood of the poles the sunbeams fall *very* obliquely.


WESTERN HEMISPHERE
NORTH POLE
NORTH FRIGID ZONE
ARCTIC CIRCLE
NORTH TEMPERATE ZONE
TROPIC OF CANCER
TORRID ZONE
EQUATOR
TROPIC OF CAPRICORN
SOUTH TEMPERATE ZONE
ANTARCTIC CIRCLE
SOUTH FRIGID ZONE
SOUTH POLE
EASTERN HEMISPHERE
NORTH POLE
NORTH FRIGID ZONE
ARCTIC CIRCLE
NORTH TEMPERATE ZONE
TROPIC OF CANCER
TORRID ZONE
EQUATOR
TROPIC OF CAPRICORN
SOUTH TEMPERATE ZONE
ANTARCTIC CIRCLE
SOUTH FRIGID ZONE
SOUTH POLE

On this account it is always cold near the poles of the earth, and snow and ice may be seen there throughout the year. Near the equator, however, it is always very warm, and snow and ice are unknown except on the highest mountain tops.

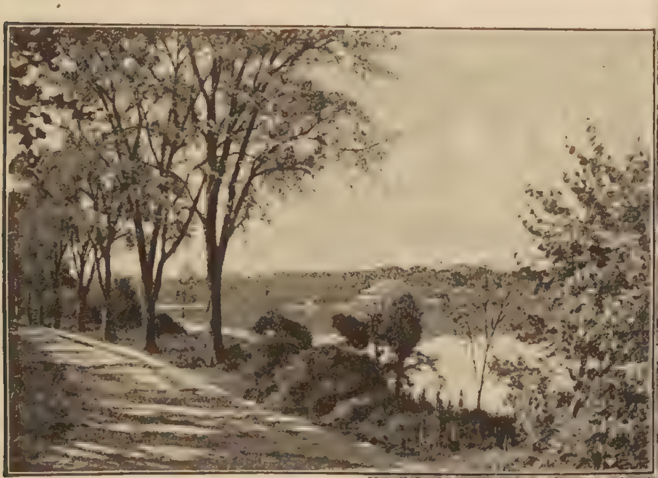
The earth's surface may therefore be divided into belts or *Zones* of heat and cold.

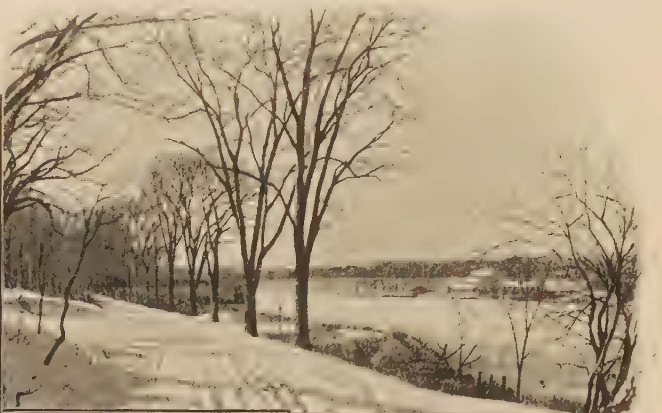
Torrid Zone. — The hottest part of the earth is called the *Torrid Zone*. This zone lies on both sides of the equator. It extends to the Tropic of Cancer on the north, and to the Tropic of Capricorn on the south.

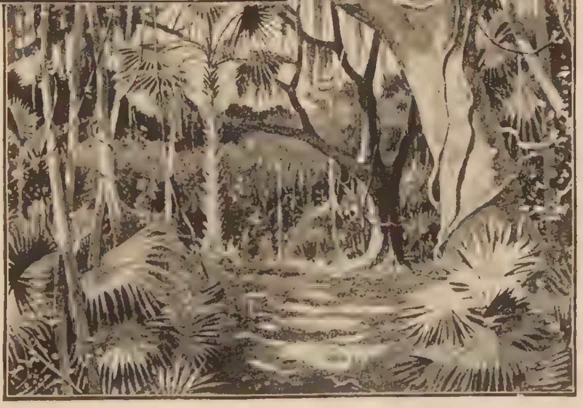
Frigid Zones. — The coldest parts of the earth lie about either pole, and are called the *Frigid Zones*. The North Frigid Zone extends from the north pole to the Arctic Circle. The South Frigid Zone extends from the south pole to the Antarctic Circle.

Temperate Zones. — Between the Torrid Zone and the Frigid Zone there is a temperate zone in each hemisphere — the North Temperate Zone in the northern hemisphere, and the South Temperate Zone in the southern hemisphere. In the Temperate zones it is warm during about one half of the year and cold during the other half.

Zones on Mountain Sides. — As we climb high mountains, or as we ascend into the air in a balloon, we find that the weather becomes colder and colder the higher we go. The change is quite rapid. Thus the tops of high mountains are always covered with snow. If such mountains are in the Torrid Zone, we find a hot climate at the base of the mountain, a temperate climate part way up its sides, and a cold climate near the top.


North Temperate Zone in July.


North Temperate Zone in January.


Torrid Zone in January.

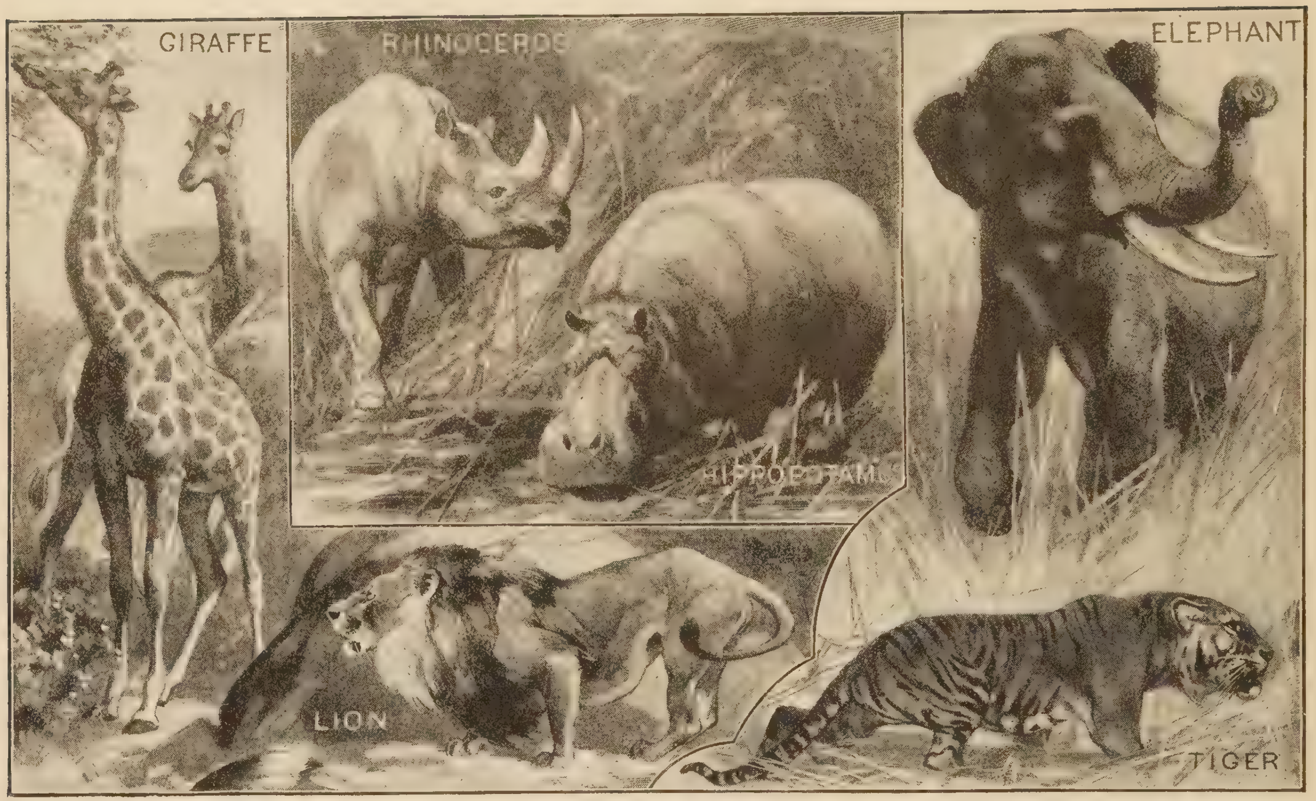
XIV. PLANTS

Plants of Hot Regions. — Most plants grow best in fertile soil where there is warmth and moisture. The Torrid Zone is warm throughout the year, and in many places very moist. Hence plant life is there most luxuriant. Most of the plants have large, broad leaves and are evergreen, that is, the old green leaves do not fall off the plant until after the new leaves are formed.

There is so much heat and moisture in some parts of the Torrid Zone that the forest trees grow very large and close together. Vines and other plants also grow over the trees, making the forests so dense that you can hardly force your way through them.

In these forests grow many valuable woods and plants, such as mahogany, rosewood, and India rubber trees. There are many beautiful palms, as the cocoanut palm; and ferns so large that they form trees, and are called tree-ferns. Spices, coffee, much sugar, and bananas, pineapples, and many other luscious fruits, are all obtained from plants which grow in the Torrid Zone, while oranges and lemons grow in that zone and in the warmer parts of the Temperate zones.

Plants of Temperate Regions. — The forests of temperate regions are more open. The trees do not grow so close together, and many



Animals of Hot Regions.

of them shed their leaves when winter comes, as the chestnut, the walnut, the hickory, the maple, the elm, and the oak, all of which you know. In some parts of the Temperate zones are great forests of evergreen pines and cedars.

Wheat and corn and rye, oats, and barley, belong to temperate regions. And here we find the apple, peach, plum, and grape, fruits we know so well and enjoy so much. Here also are grown tea and tobacco, the cotton and flax of which much cloth is made, and the beet which supplies many countries with sugar.

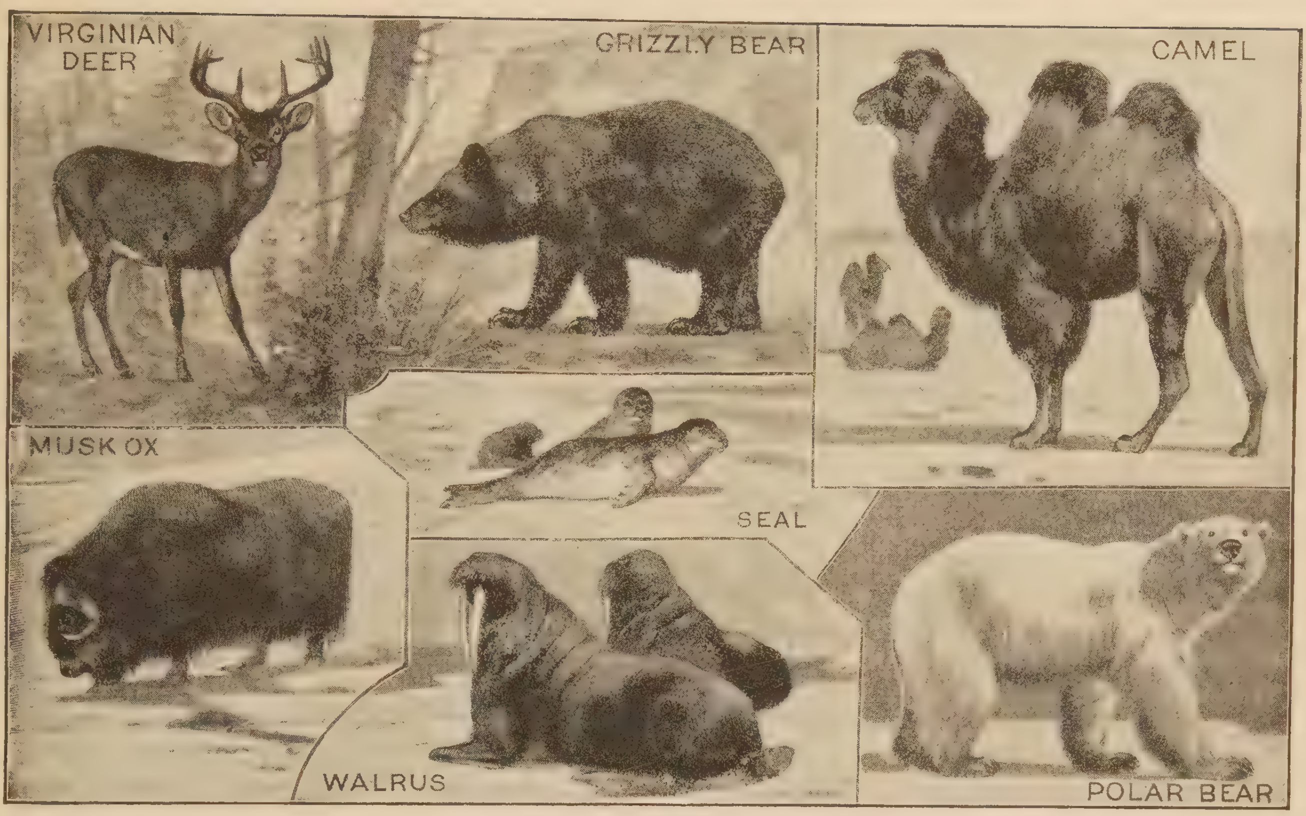
Plants of Cold Regions. — The Frigid zones are so cold that in some places the ground is frozen all the time. Hence few plants grow there. The chief plants are mosses, lichens, dwarf willows, and birches. These are plants of the hardiest nature.

Plants on Mountains. — Since it becomes colder the higher we go, the plants near the top of high mountains are very different from those near the bottom. Thus if the mountains are in the Torrid Zone, the plants of hot regions will grow at the foot; plants of temperate regions some distance up; and plants of cold regions at the top just below the perpetual snow.

XV. ANIMALS

Animals live on plants or on plant-eating animals. Hence where plants are most abundant we find the most animals. But we have learned that the greatest number of plants grow where it is warm and moist. Both animals and plants are therefore most abundant in the Torrid Zone.

Animals of Hot Regions. — Many large plant-eating animals, like the elephant, the



Animals of Temperate and Cold Regions.

rhinoceros, the hippopotamus, and the giraffe, are found in the Torrid Zone. There are also many large catlike animals, as the lion, the tiger, the leopard, and the jaguar.

In many places monkeys are abundant, and birds of the most brilliant plumage. Beautiful butterflies and other insects swarm in this zone. Serpents abound, and many of them are of great size, as boa constrictors. In the rivers there are many crocodiles and alligators.

Animals of Temperate Regions. — Many of the animals of temperate regions are useful. The horse, the donkey, the cow, the sheep, the goat, and the pig all lived wild at one time in the North Temperate Zone. They have been tamed and improved, and are now used in warm lands also. The camel is very useful in both temperate and torrid regions.

Many doglike animals are found here. Some of these are the wolves and the foxes. Many different kinds of deer and bears are abundant in the forests. The grizzly, black, and brown bears are well known.

The birds are not so beautiful as those of hot regions, but their song is much sweeter and more varied. The robin, the bobolink, the thrushes, and the mocking bird nest in temperate regions.

Animals of Cold Regions. — Many water birds, such as wild ducks and geese, live in the Frigid Zone in the short polar summer, but migrate toward the equator in winter. A few birds remain in the Arctic regions throughout the year. These are mainly water birds.

The polar bear, the musk ox, the reindeer, and the arctic fox are the chief land animals of cold regions; but many seals and walruses live in the ocean along the borders of lands and ice fields. On these they come out to rest and sleep.

TEST EXERCISES FOR REVIEW

Negro.

11. How does the weather affect rocks? What is made by the crumbling of the rocks? Describe how rock waste is removed. How were valleys made? What is erosion? Describe the formation of deltas. What are barrier beaches?

12. Describe the cause of day and night. What is the axis of the earth? the north pole? the south pole? the equator? Into what does the equator divide the earth's surface?

13. Explain why it is warmer at noon than in the early morning. Which part of the earth is the warmest? Why? Which parts of the earth are the coldest? Why? How is the earth divided with respect to the heat? Name and locate the zones. Describe the heat belts or zones on the sides of high mountains.

14. Where do plants grow best? in what zone? Describe the foliage of plants in hot regions. Mention some useful plants that grow there. Describe the forests of the temperate regions. Mention some of their useful plants. What can you say of plants in cold regions? of plants on the slopes of high mountains?

15. Where are animals most abundant? Why? Mention some animals of hot regions; of temperate regions; of cold regions.

XVI. RACES OF MEN

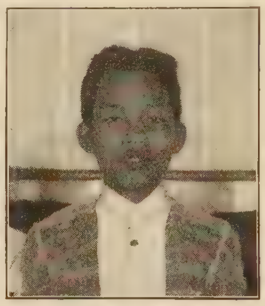
Man. — Animals often live best in the region where they are first found. This is because they are *adapted*, or fitted, to the climate and place. Man can adapt himself to any climate. This is because he can think and reason and has more cunning than animals. He has learned to build a fire, to make clothing, and to raise and preserve food. He is thus not so dependent upon nature for what he needs.

Mongolian.

Caucasian.

People from different parts of the earth differ very little in shape and size. They are so much alike that we think all people distantly related. Still people do differ in some ways. Thus some men have dark brown skins and very curly hair; others have a yellow or a brownish skin and very straight hair; and still others very fair skins and silky hair.

Races. — By such slight differences as these mankind has been divided into four great *Races*, — the Black or Negro race, the Brown or Malay race, the Yellow or Mongolian race, and the White or Caucasian race. Each of these great races lives chiefly in a different part of the world from the others.



Malay.

The Negro Race. — A negro has a dark brown or nearly black skin, curly or kinky hair, thick lips, and a flat nose. The great home of the negro is central and southern Africa; but the few black natives of Australia and some islands near by are also classed as negroes.

Some negro tribes in Africa cultivate the soil and have settled homes. Others live in the forests, are ignorant and degraded, wear little or no clothing, and get their food chiefly by hunting. These may be called *Savages*.

The Brown or Malay Race. — A Malay has a brownish skin, dark eyes, and straight dark hair. The home of this race is southeastern Asia and the islands of the Pacific.

The Yellow or Mongolian Race.—A Mongolian has coarse, straight, black hair and a yellowish skin. The chief home of the race is eastern Asia; but the reddish natives of America, Eskimos and Indians, are classed with this race.

Some of the peoples of this race live in tents and roam from place to place with their herds, and are but *half civilized.* Others build houses and live by farming. Many can read and write, and have advanced much in civilization.

CATTLE RAISING.

LUMBERING.

AGRICULTURE.

The White or Caucasian Race. — A Caucasian has a pinkish skin, fine, silky, often wavy hair, and a high, broad forehead.

This race contains the most civilized and enlightened people of the world. They build houses, cultivate the soil, make good tools and machines, and build engines, ships, and railroads. They produce better food and clothing than the other races. Most of the people can read and write, and good schools and colleges are generally found among them.

The home of the Caucasian race is Europe, southern Asia, and northern Africa. Caucasians from Europe have settled in many other parts of the world, especially in America and Australia, where most of the people now belong to that race.

XVII. OCCUPATIONS

Occupations. — The chief occupations of mankind are agriculture, herding, mining, lumbering, manufacturing, and commerce.

Agriculture. — When men cultivate the soil and raise crops of plants for food or clothing, they are said to be engaged in *Farming* or *Agriculture.* The chief crops raised are wheat, corn, rye, oats, barley, rice, cotton, sugar beets, sugar cane, fruits, garden vegetables, tea, coffee, and spices. The crops differ in different parts of the world because the climates and soils differ.

Herding. — In some places the chief employment of men is raising horses, cattle, sheep, goats, hogs, or camels. This occupation is called *Herding.* The cattle are fattened for their flesh, called *Beef*, or they are used to furnish milk, from which we get butter and cheese. The sheep are raised for their wool,

Manufacturing.

goats for their hair, and camels for use as beasts of burden.

Lumbering and Mining. — The cutting down of trees and preparing the wood roughly for market is called *Lumbering*.

The digging of coal, iron, gold, silver, copper, and other useful minerals from the earth is called *Mining*. The place where the minerals are dug is called a *Mine*. Some mines, as coal mines, are very deep, and great machines must be used to force pure air into the mines and to pump the water out.

Manufacturing. — The making, on a large scale, of cloth, paper, machines, wagons, ships, engines, and other things of use to man is called *Manufacturing*. The building in which articles are made is called a *Factory*. Factories are usually situated where there is water for turning water wheels or where fuel for engines to run the machines can be easily obtained.

Commerce. — The buying and selling of goods and carrying them from one place to another is called *Commerce*. Goods are bought and sold by *merchants*, and are carried from place to place by horses and wagons, by camels, by railroads, and in ships.

XVIII. GOVERNMENT

Government. — Men make rules or *Laws* to secure order in their country. All the people are then protected and benefited. The laws and customs by which a people are controlled form their *Government*. Certain men make the laws and see that they are obeyed. These men are *Officers* of the government.

Kinds of Government. — There are two chief kinds of governments, *Republics* and *Monarchies*. Monarchies are also of two kinds, limited monarchies and absolute monarchies.

Monarchy. — An *Absolute Monarchy* is one in which the ruler, or king, makes the laws and sees that they are obeyed. He has entire control of the country, and all the people must obey his will. He obtains his position generally because he is the son or other near relative of the former ruler, and he holds it for life.

Commerce.

In a *Limited Monarchy* the people choose men to make the laws, and the king sees that they are enforced. The king in a limited monarchy has therefore much less power than the king in an absolute monarchy. But he usually obtains his position in the same way, and holds it for life.

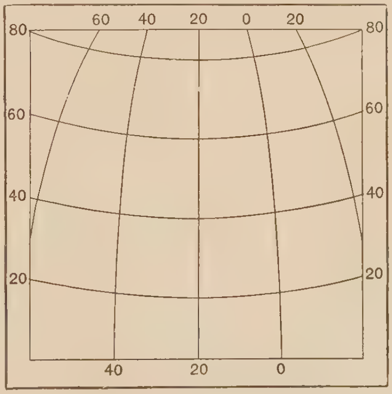
Monarchies are sometimes called *Kingdoms*, *Empires*, and *Principalities.* A kingdom is ruled by a king, an empire by an emperor, and a principality by a prince.

Republic. — In a *Republic* the people elect officers to make the laws and others to enforce them. These officers are elected for a definite time only. If they do not act properly, the people need not elect them again.

The chief officer in a republic is called *President.*

XIX. HOW TO READ A MAP

Directions Indicated. — The directions on maps are indicated by two sets of fine black lines. One set usually cross the map from the top to the bottom. On most maps they are somewhat curved. They are called *Meridians* and indicate north and south direction.



MERIDIANS AND PARALLELS.

The other set of black lines usually cross the map from side to side. They also are usually curved. They are called *Parallels of Latitude* and indicate east and west direction.

In most maps toward the top is north, toward the bottom south, toward the left hand west, and toward the right, east.

How Features are drawn. — In many maps the large bodies of water, such as oceans, seas, gulfs, and lakes, are colored blue, and their names are printed across or near them. Each division of land has some other color, and its name is printed on or near it.

Rivers are drawn in wavy black lines, which get heavier toward the mouth of the river. The name of the river is printed alongside.

Mountain Ranges are indicated by a great number of short black marks side by side, and the name is printed near by.

A Town is shown by a small black ring, near which the name of the town is printed.

How to study a Map. — In studying a country on the map we should follow some regular plan.

1. Bound the country by naming the countries or bodies of water around it. Name those to the north, east, south, and west.
2. Describe its shape.
3. If it borders an ocean, describe the coast line.
4. Describe the position and trend of the mountains in the country.
5. Name the chief rivers and describe them by telling where they rise, their direction of flow, and into what they flow. Also name some of their branches.
6. Name the chief lakes, their inlets and outlets, if there are any, and tell where they are situated.
7. Name and locate the capital (marked thus *) and chief towns of the country.

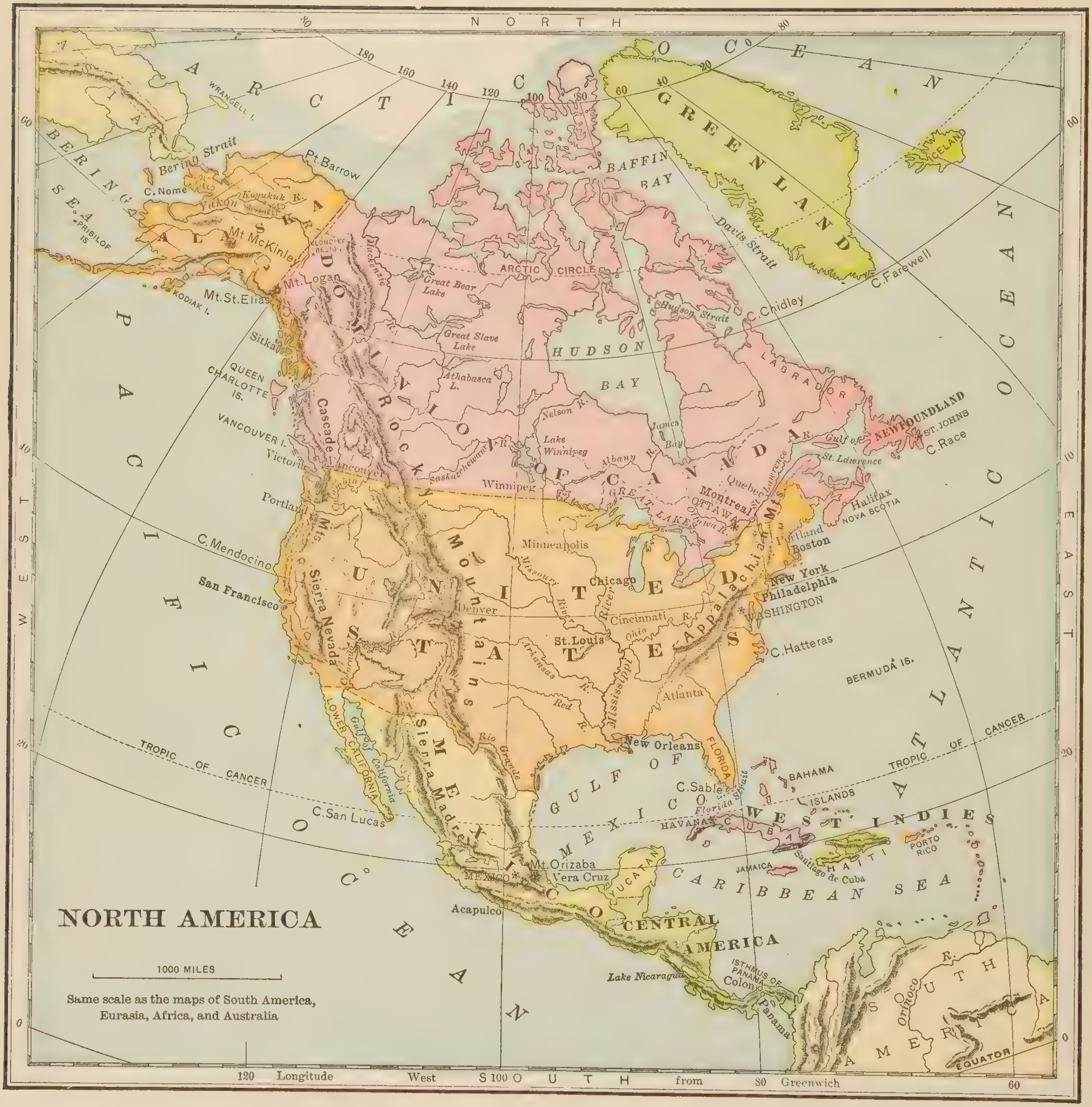
TEST EXERCISES FOR REVIEW

16. How does climate affect man in comparison with its effect on plants and animals? Why is this the case? Into what races is mankind divided? Describe the Negro race. Where is its home? How does it live? Describe and locate the Mongolian race. How does it live? Describe the Caucasian race. What progress has it made? Where is its home? Where has it spread?

17. What are the chief occupations of man? What is agriculture? Name the chief crops. Tell what you can of herding; of lumbering and mining. What is manufacturing? Tell what you can of commerce.

18. What is government? What are the chief kinds of government? What is an absolute monarchy? a limited monarchy? a republic?

19. How are directions shown on a map? What do meridians show? parallels of latitude? How are water surfaces shown? countries? rivers? mountains? cities? How should you study a map?


NORTH AMERICA
1000 MILES
Same scale as the maps of South America, Eurasia, Africa, and Australia
NORTH ARCTIC OCEAN
ASIA
WRANGELL I.
BERING SEA
Bering Strait
C. Nome
Pt. Barrow
PRIBILOF IS.
KODIAK I.
ALASKA
Yukon
Kovukuk R.
Mt McKinley
Mt. Logan
Mt. St. Elias
KLONDIKE
Sitka
QUEEN CHARLOTTE IS.
VANCOUVER I.
Victoria
Vancouver
Cascade
Mackenzie
Great Bear Lake
Great Slave Lake
Athabasca L.
ARCTIC CIRCLE
BAFFIN BAY
GREENLAND
ICELAND
Davis Strait
C. Farewell
Hudson Strait
C. Chidley
HUDSON BAY
James Bay
LABRADOR
NEWFOUNDLAND
ST. JOHNS
C. Race
Gulf of St. Lawrence
St. Lawrence R.
Quebec
Montreal
OTTAWA
Halifax
NOVA SCOTIA
DOMINION OF CANADA
ROCKY
Nelson R.
Lake Winnipeg
Winnipeg
Saskatchewan R.
Albany R.
GREAT LAKES
Ottawa R.
Portland
C. Mendocino
San Francisco
Sierra Nevada
Cascade Mts
MOUNTAINS
UNITED STATES
Minneapolis
Missouri
Chicago
River
Denver
Cincinnati
Ohio R.
St. Louis
Mississippi
Arkansas R.
Red R.
Atlanta
APPALACHIAN MTS.
Portland
Boston
New York
Philadelphia
WASHINGTON
C. Hatteras
BERMUDA IS.
Rio Grande
New Orleans
FLORIDA
C. Sable
Florida Strait
GULF OF MEXICO
BAHAMA ISLANDS
HAVANA
CUBA
WEST INDIES
Santiago de Cuba
JAMAICA
HAITI
PORTO RICO
CARIBBEAN SEA
TROPIC OF CANCER
LOWER CALIFORNIA
Gulf of California
C. San Lucas
Sierra Madre
MEXICO
Mt. Orizaba
Vera Cruz
YUCATAN
Acapulco
CENTRAL AMERICA
Lake Nicaragua
ISTHMUS OF PANAMA
Colon
Panama
SOUTH AMERICA
Orinoco R.
EQUATOR
PACIFIC OCEAN
ATLANTIC OCEAN
WEST
EAST
SOUTH
Longitude West from Greenwich
180
160
140
120
100
80
60
40
20
0

NORTH AMERICA

EXERCISES ON THE MAP

Location. — In what continent is North America? What circle crosses the northern part? the southern part? In what zones is North America? What oceans border North America? With what land is it connected in the southeast? By what strait is it separated from Asia?

Extent. — In what direction is North America longest? Where is it widest? With the scale of miles measure its length; its width at the widest place. What is its shape?

Coast Forms. — What large gulf is in the southeast? What large bay is in the north? What strait connects it with the Atlantic Ocean? What gulf is in the extreme east? What sea is north of the Isthmus of Panama? What gulf is on the southwest coast? What sea is in the northwest? What strait connects it with the Arctic Ocean?

What peninsula is south of the Gulf of St. Lawrence?

What peninsulas are in the southeast? What peninsula is on the southwest coast? Find some peninsulas that are not named on the map.

Islands. — On which side of North America are most of the islands? What is the largest island? What bay and strait are southwest of Greenland? What island is east of Greenland? What island is east of the Gulf of St. Lawrence? What islands are north and east of the Caribbean Sea? Name the largest one. What is the largest island near the western coast of North America?

Surface. — Find four mountain ranges in the western part of North America. What three ranges are closest to the Pacific coast? What long mountain chain is farther east? In what direction do these mountains extend? What mountains are near the eastern coast? What is their trend?

Drainage. — Where are there lakes in North America? What river flows into the Arctic Ocean? What lakes lie in its basin? What river flows into Hudson Bay? Name a lake drained by this river. What river flows into the lake? What river flows into the Gulf of St. Lawrence? What lakes are drained by this river? What two rivers flow into the Gulf of Mexico? Name four branches of the Mississippi River. What river flows into the Gulf of California? into the Pacific Ocean? into Bering Sea?

Countries. — Where is the Dominion of Canada? What country is south of it? What region is northwest of Canada? What country is south of the United States? What region is southeast of Mexico?

Map Drawing. — Sketch and resketch an outline of the mainland of North America like this figure, but larger, until you can reproduce its shape quickly from memory.

DESCRIPTION

Position and Extent. — North America, the grand division in which we live, is the northern part of the Western Continent. It lies between the Atlantic Ocean on the east and the Pacific Ocean on the west.

It lies chiefly in the North Temperate Zone, but extends into the Frigid Zone in the north and into the Torrid Zone in the south.

Its width from east to west is so great that it takes four days and nights of constant travel for a fast railway train to cross it. The length from north to south is nearly twice the width.

Shape and Coastline. — North America is wide at the north and tapers nearly to a point at the Isthmus of Panama.

The northern coast is quite irregular. Hudson Bay extends far inland; it is connected with the Atlantic Ocean by Hudson Strait.

The eastern coast is also quite irregular. In the northeast is the Gulf of St. Lawrence, partly inclosed by the peninsula of Nova Scotia and the island of Newfoundland. In the southeast is the great Gulf of Mexico, partly inclosed by the two peninsulas of Florida and Yucatan and by the island of Cuba.

The western coast is more regular than the others, although it is broken by the Gulf of California in the southwest, and there is a long peninsula in the northwest partly inclosing Bering Sea.

Islands. — The largest island on the northern coast is Greenland. Most of this island is covered all the time with snow and ice thousands of feet deep.

Iceland also is partly covered with snow and ice. This island has a famous volcano and many hot springs and geysers.

The largest island on the extreme eastern coast of North America is Newfoundland.

But the most noted islands of North America are the West Indies, lying mostly north and east of the Caribbean Sea. These islands contain the land in America first visited by Columbus. On many of them palms and tropical plants grow all the year, and flowers may always be seen in bloom.

A part of the west coast is fringed by small islands. Can you find them on the map?

The Western Highlands occupy nearly one third of the width of North America. They form a plateau more than a mile high and

Rocky Mountains.

have three important mountain ranges traversing the plateau from northwest to southeast.

The Rocky Mountains, near the eastern border of the plateau, form the highest and longest range. They extend nearly the whole length of North America. They are rough and rugged, with many peaks nearly three miles high.

The Cascade Mountains and Sierra Nevada, near the western border of the plateau, as a whole are not so high as the Rocky Mountains, but some of the peaks are a little higher.

Near the southern end of North America is the Sierra Madre. This range is high and rugged, with a jagged crest. Near it are several high, snow-capped volcanoes.

All of these western mountain ranges are so high that trees will not grow on their upper slopes. (See the picture at the foot of this page.)

Between the three long mountain ranges on the west, and the Rocky Mountain range, is a broad highland. This is crossed by short mountain ranges and cut by deep, narrow gorges or canyons.

The Eastern Highlands. — The Appalachian Mountain system occupies the eastern part of North America, and extends from the Gulf of St. Lawrence nearly to the Gulf of Mexico. It consists of a low plateau bordered on the east by a number of nearly parallel ranges, often with fertile valleys between the ranges. These mountains are no higher than the base of the Rocky Mountains, and are so low that in most places trees and grass grow on their slopes and summits. The Appalachian ranges are generally flat-topped, and their slopes are smoother and gentler than those of the Rocky Mountains.

The Allegheny plateaus lie directly west of the Appalachian ridges, and are a part of the Appalachian Mountain system. They form a low table-land into which the streams have cut deep and narrow valleys.

Timber Line, Pikes Peak, Colorado.

Appalachian Mountains.

A low plateau, called the *Laurentian Highland*, lies between Hudson Bay and the Gulf of St. Lawrence.

Plains. — Between the Rocky Mountain highland and the Appalachian highland is a great plain extending from the Arctic Ocean to the Gulf of Mexico.

The surface of the plain is generally quite smooth. In some parts it appears so nearly level that you can tell the direction of its slope only by the flow of the rivers.

The rivers in the southern part flow south, those in the northern part flow north, and in the central part the main streams flow to the east. Thus we know that there are three great slopes in the central plain. The low swells or divides separating the three are less than half as high as the Appalachian Mountains, and are sometimes called *Heights of Land*.

A smaller plain lying east of the Appalachian Mountains is called the *Atlantic Coast Plain*. It slopes very gently toward the Atlantic Ocean, and near the coast contains many swamps.

Drainage. — North America contains seven great rivers, four of which drain the central plain.

The southern slope of the central plain is drained mainly by the Mississippi River and its branches to the Gulf of Mexico. Its great western branches, the Missouri, Arkansas, and Red rivers, flow from the Rocky Mountains, while the Ohio River, which forms the largest eastern branch, flows from the Appalachian Mountains.

The Mississippi is the largest river in North America, and many steamboats ply on its waters. Sometimes in spring the melting of the snows on the high Rocky Mountains causes floods in the Mississippi. The river then brings down a great load of earth, and when the muddy water spreads out over the banks it does not flow so fast there as in the main channel, and a coating of the river mud is deposited over the plain. In this way a flood plain is formed in which the soil is deep and very fertile.

The northern slope of the central plain is drained by the Mackenzie River to the Arctic Ocean. This river is the outlet of several lakes, the largest of which are Great Bear Lake and Great Slave Lake.

The middle part of the central plain is drained by the St. Lawrence River, and by the Nelson River, which flows into Hudson Bay.

The upper course of the Nelson River is called the Saskatchewan River. This widens to form Lake Winnipeg, of which the Nelson River is the outlet.

Indian Wigwam.

The St. Lawrence River system includes the Great Lakes — Superior, Michigan, Huron, Erie, and Ontario. Lake Superior is the largest body of fresh water in America.

The rivers flowing into the Arctic Ocean and Hudson Bay are frozen much of the year, and few people live in their basins; consequently few steamboats float on their waters.

The western side of North America is drained by three large rivers, — the Yukon River, which flows into Bering Sea; the Columbia, which flows into the Pacific Ocean; and the Colorado, which flows into the Gulf of California. These rivers all have their sources in the Rocky Mountain highland, and flow westward. The rivers east of the Rocky Mountains flow eastward, and so this highland divides North America into two great slopes, — a slope on one side toward the Pacific and on the other side toward the Arctic and Atlantic oceans.

Heat and Rainfall. — North America has a great variety of climate. The southern part lies in the Torrid Zone, and is always hot and moist except on the highlands, where it is cooler and drier and usually very pleasant. The northern part is in the Frigid Zone, and is so cold that snow falls every month in the year, and the ground is always frozen to a great depth.

The greater part of North America lies in the Temperate Zone, but even in this zone there is a great variety of climate. Near the Tropic of Cancer there is little difference between summer and winter, but near the Arctic Circle the long winters are intensely cold, while the short summers are quite warm.

The prevailing southwest winds give much of the Pacific coast a mild and moist climate; but the interior is drier, with cold winters and hot summers.

Plants. — In the north mosses and lichens and a few low shrubs are the only plants that will grow during the short summers.

In the latitude of Hudson Bay open forests of spruce, pine, and cedar trees cover almost the entire country.

Still farther south the forests are denser, but are mostly east of the Mississippi River. They contain pines, spruces, and cedars, as well as oak, chestnut, maple, hickory, ash, and walnut trees. West of the Mississippi the climate is drier, and the chief plants are grasses; but on the mountain slopes and near the Pacific coast there are extensive forests.

In the extreme south are dense forests of palms and mahogany, logwood, rosewood, and ebony trees on the lowlands. On the cooler and drier highlands the plants resemble those growing on the lowlands farther north.

Animals. — In the north the chief sea animals are the whale, seal, and walrus; and the land animals include the polar bear, the Arctic fox, the musk ox, the caribou or American reindeer, the moose, and the "elk," as well as many small fur-bearing animals. The polar bear preys upon seals, and the musk ox feeds upon the mosses and lichens which it digs up with its sharp hoofs from under the snow. In the short Arctic summer many swans, geese, ducks, and other water fowl come to this region.

Deer and black bears were once abundant in the forests east of the Mississippi, and vast herds of bison once grazed over the grassy plains. Antelopes, wolves, and prairie dogs are found in the west, and bighorn sheep, grizzly bears, and pumas in the Rocky Mountain highland.

In the southern part of North America, where it is hot, alligators may be seen lying in the sun along the streams, monkeys and snakes are common in the forests, and there are many bright-colored birds and insects.

An Alligator.

People; Whites. — Most of the present inhabitants of North America belong to the white race, and are descendants of highly civilized people who have come here from Europe during the past four hundred years.

The white people landed on the east coast and gradually settled the country westward to the Pacific, but by far the larger number live in the southeastern half of the grand division.

Negroes. — Among the whites, chiefly in the extreme southeast, are many negroes whose ancestors were brought from Africa as slaves.

Indians. — In the northwest half are scattered tribes of American Indians, whose ancestors used to roam over the whole country, living in skin or bark wigwams and using bows and arrows and stone knives and tomahawks. Partly civilized Indians and Indian half-breeds live with the whites in the southwest.

Eskimos. — The few natives along the bleak Arctic coasts are called *Eskimos*. They make their houses of snow and ice, and live by hunting and fishing.

Chinamen. — A few Chinese merchants and laborers from eastern Asia live among the whites near the Pacific coast. Indians, Eskimos, and Chinese belong to the Mongolian race.

Divisions. — North America is divided into: *The United States*, the country we live in, which contains three fourths of the people in the grand division and is one of the greatest nations of the world; *Alaska*, which belongs to the United States; *The Dominion of Canada*, which embraces the greater part of the grand division north of the United States; *Danish America*, which embraces Greenland and Iceland; *Mexico*, which lies south of the United States; *Central America*, southeast of Mexico; and *The West Indies*, between the Caribbean Sea and the Atlantic.

TEST EXERCISES FOR REVIEW

Where is North America? In what zones is it? What waters border it? What is its shape?

Describe its coasts, naming and locating its principal gulfs, bays, peninsulas, and islands.

What mountains are in the western part? in the eastern part? Describe the surface in the central part. What other plain is in North America?

Name and tell what you can of each of the seven chief rivers of North America.

Describe the climate of the northern part of the grand division; of the southern part; of the central part.

What can you tell of the vegetation of North America? What kinds of forests are found, and where?

What are the principal animals of the grand division, and in what parts are they found?

Tell all you can about the people of North America.

Name and locate the various divisions of North America.

THE UNITED STATES

EXERCISES ON THE MAP

Location and Coast Line. — In what zone is the United States? Name the countries and bodies of water that border it, beginning on the north.

Name four bays on the east coast; five capes. What bay is on the west coast? What sound is in the extreme northwest? What capes and point are on the west coast? Name two bays and a cape on the south coast.

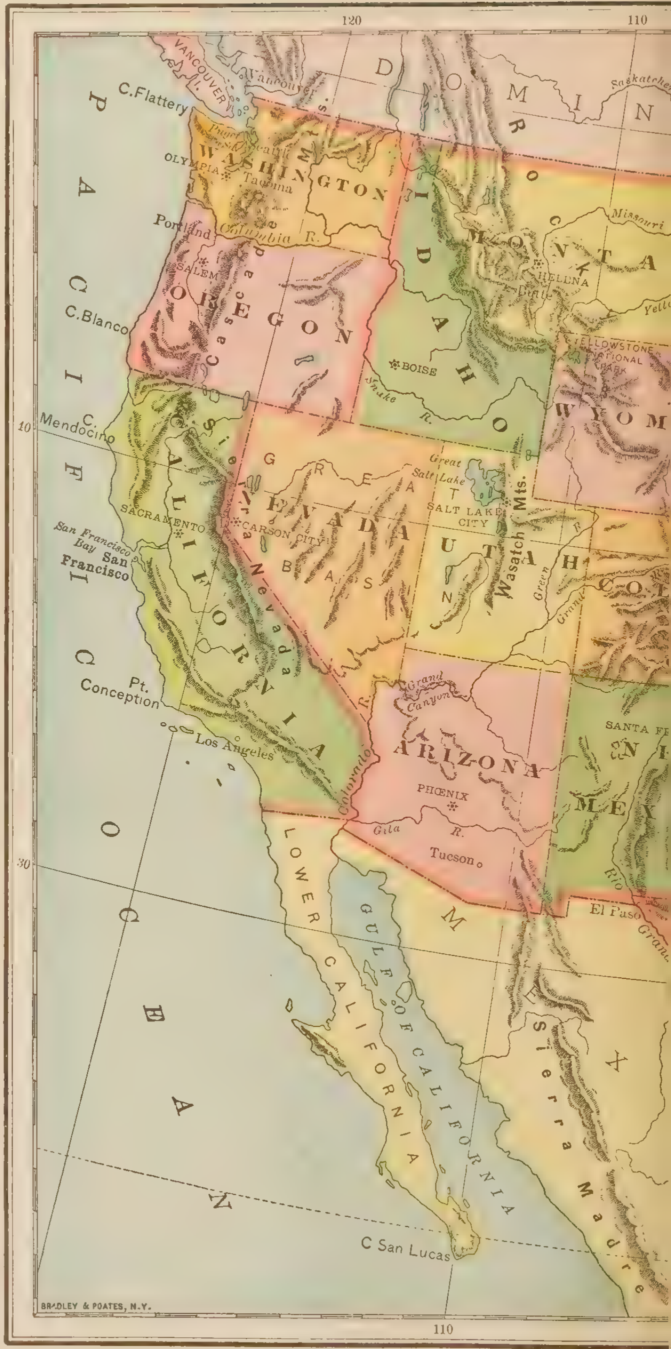
Surface. — Which side of the United States is most mountainous? Name two ranges near the Pacific Ocean. What great chain crosses the country west of the center? What range is between the Rocky Mountains and the Sierra Nevada? What basin is west of the Wasatch Mountains? What mountains are near the Atlantic coast?

What part of the United States is a great plain? In what direction does this plain slope?

Drainage. — Into the arms of what ocean do most of the rivers of the United States flow? What two large rivers flow into the Pacific Ocean or its arms? Trace the divide between the Atlantic and Pacific slopes. Which is the longer? Name the largest river of the United States. Where is its source? Into what does it flow? Name three western branches. Name the chief eastern branch. What river is on the southwestern boundary? Find the Red River that flows across the northern boundary of the United States. Into what lake does it flow? Name five great lakes on or near the northern border. What river forms their outlet? Name five small rivers on the Atlantic coast. Into what bays do three of them flow? What lake is west of the Wasatch Mountains? Has it an outlet?

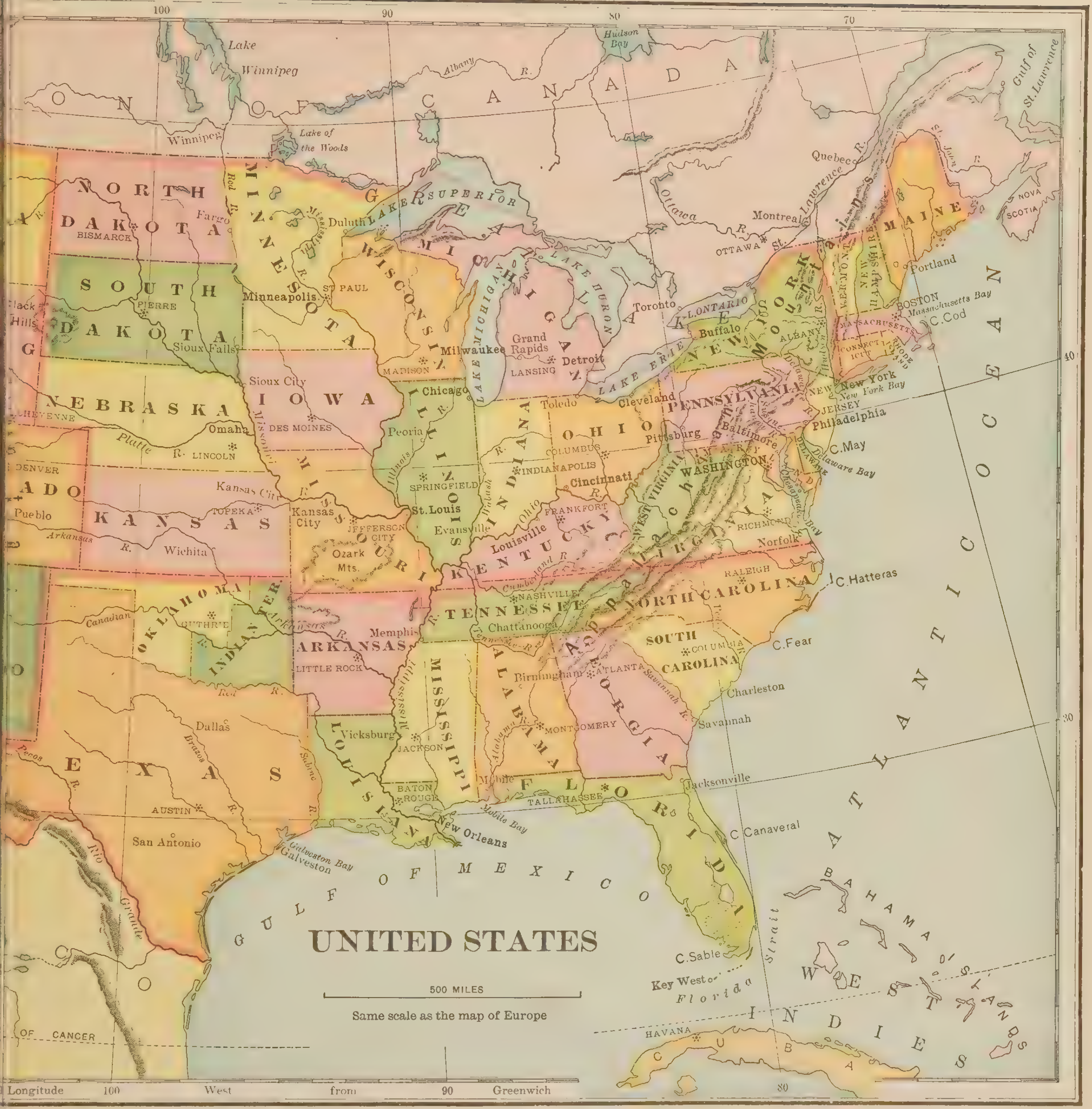
Subdivisions. — What subdivisions border on the Great Lakes? Name the six subdivisions east of New York. What subdivisions border on the Atlantic coast between New York and Florida? What subdivisions border on the Gulf of Mexico? What ones border the Mississippi River on the east? What ones border the Ohio River? What ones border the Mississippi River on the west? What ones are bordered or crossed by the Missouri River? by the Arkansas? What subdivisions are traversed by the Rocky Mountains? What ones lie wholly between the Rocky Mountains and the Sierra Nevada and Cascade chain? What ones border the Pacific Ocean?

Map Drawing. — Sketch and resketch an outline of the United States like this figure, but larger, until you can do it quickly from memory.


120
110
D O M I N
C. Flattery
Vancouver I.
Puget Sd.
Seattle
Olympia
Tacoma
WASHINGTON
Portland
Columbia R.
Salem
OREGON
Cascade
C. Blanco
IDAHO
Boise
Snake R.
MONTANA
Helena
Missouri
Yellowstone National Park
WYOMING
40
C. Mendocino
Sacramento
San Francisco Bay
San Francisco
Sierra Nevada
CALIFORNIA
NEVADA
Carson City
GREAT BASIN
Great Salt Lake
Salt Lake City
UTAH
Wasatch Mts.
Green
Grand
Grand Canyon
Colorado R.
ARIZONA
Phœnix
Gila R.
Tucson
Pt. Conception
Los Angeles
SANTA FE
N
MEX
Rio Grande
El Paso
30
LOWER CALIFORNIA
GULF OF CALIFORNIA
C San Lucas
M E X
Sierra Madre
PACIFIC OCEAN
BRADLEY & POATES, N.Y.
110

DESCRIPTION

Position. — The United States, the country in which we live, lies in the central part of North America and extends from the Atlantic Ocean to the Pacific Ocean and from the Gulf of Mexico to the Great Lakes.


UNITED STATES
500 MILES
Same scale as the map of Europe
DOMINION OF CANADA
Hudson Bay
Lake Winnipeg
Albany R.
Winnipeg
Lake of the Woods
Gulf of St. Lawrence
NOVA SCOTIA
Quebec
Montreal
OTTAWA
Ottawa R.
St. Lawrence R.
Toronto
NORTH DAKOTA
BISMARCK
Fargo
SOUTH DAKOTA
PIERRE
Black Hills
Sioux Falls
NEBRASKA
CHEYENNE
Omaha
LINCOLN
Platte R.
DENVER
COLORADO
Pueblo
KANSAS
TOPEKA
Wichita
Arkansas R.
Kansas City
MINNESOTA
Red R.
Duluth
ST PAUL
Minneapolis
Mississippi R.
IOWA
Sioux City
DES MOINES
Missouri R.
MISSOURI
JEFFERSON CITY
Ozark Mts.
St. Louis
WISCONSIN
MADISON
Milwaukee
LAKE SUPERIOR
LAKE MICHIGAN
LAKE HURON
LAKE ERIE
L. ONTARIO
MICHIGAN
Grand Rapids
LANSING
Detroit
ILLINOIS
Chicago
Peoria
SPRINGFIELD
Illinois R.
INDIANA
INDIANAPOLIS
Evansville
Wabash R.
OHIO
Toledo
Cleveland
COLUMBUS
Cincinnati
Ohio R.
KENTUCKY
FRANKFORT
Louisville
Cumberland R.
TENNESSEE
NASHVILLE
Chattanooga
Memphis
Tennessee R.
OKLAHOMA
GUTHRIE
INDIAN TER.
Canadian R.
Arkansas R.
Red R.
ARKANSAS
LITTLE ROCK
TEXAS
Dallas
AUSTIN
San Antonio
Galveston
Galveston Bay
Brazos R.
Pecos R.
Rio Grande
Sabine R.
LOUISIANA
BATON ROUGE
New Orleans
MISSISSIPPI
JACKSON
Vicksburg
ALABAMA
MONTGOMERY
Birmingham
Mobile
Mobile Bay
Alabama R.
GEORGIA
ATLANTA
Savannah
Savannah R.
FLORIDA
TALLAHASSEE
Jacksonville
C. Canaveral
C. Sable
Key West
Florida Strait
SOUTH CAROLINA
COLUMBIA
Charleston
NORTH CAROLINA
RALEIGH
C. Fear
C. Hatteras
VIRGINIA
RICHMOND
Norfolk
WEST VIRGINIA
APPALACHIAN MTS.
MARYLAND
Baltimore
WASHINGTON
DELAWARE
Delaware Bay
C. May
Chesapeake Bay
PENNSYLVANIA
Pittsburg
Philadelphia
NEW JERSEY
NEW YORK
New York
New York Bay
Buffalo
ALBANY
Hudson R.
Delaware R.
CONNECTICUT
RHODE ISLAND
MASSACHUSETTS
BOSTON
Massachusetts Bay
C. Cod
VERMONT
NEW HAMPSHIRE
MAINE
Portland
St. John R.
ATLANTIC OCEAN
GULF OF MEXICO
BAHAMA
WEST INDIES ISLANDS
CUBA
HAVANA
TROPIC OF CANCER
100
90
80
70
40
30
Longitude 100 West from 90 Greenwich 80

Size. — The United States is one of the largest countries in the world. Its length from east to west is about 3000 miles and its width is about half this distance.

In addition, the United States owns Alaska and some islands in the West Indies and in the Pacific Ocean.

Coast Line. — The eastern coast is quite irregular. At Cape Cod, Cape Hatteras, and Florida the land projects out toward the ocean, while Massachusetts Bay, New York Bay, Delaware Bay, and Chesapeake Bay indent the coast and contain good harbors at which great cities have grown up.

Grand Canyon.

North of Cape Cod the coast is bold and rocky, abounding in fiords, with high, rocky headlands between. It is fringed by many small, rocky islands.

South of Cape Cod the coast is low and marshy. It is bordered by long, sandy islands, separated from the coast by shallow lagoons of salt water. The coast of the Gulf of Mexico resembles the Atlantic coast south of Cape Cod.

The Pacific coast is so regular that it has few good harbors. Puget Sound in the north and San Francisco Bay near the center are the most important.

Relief. — The Pacific coast rises abruptly from the sea into a low chain of mountains. Back of these mountains is a broad valley, to the east of which the land again rises rapidly into the great highland which occupies nearly the whole western half of the United States.

The Cascade Mountains and Sierra Nevada form the western border of the great highland. Both of these ranges have high peaks which reach above the clouds and are always snow-capped. Some of the peaks were once volcanoes and some of them still have hot springs on their sides.

East of these mountains is a plateau region about a mile high, traversed by short mountain ranges, strange cliffs, and wonderful canyons. The eastern part of the plateau region is traversed by the Rocky Mountains, which are the longest and most rugged mountains in the country.

The Rocky Mountains contain many irregular ranges, and in a number of places the ranges nearly inclose high, broad valleys, with streams and clear lakes, woods and grassy lands, arranged so beautifully that people call them *Parks*. Many of the mountains in the

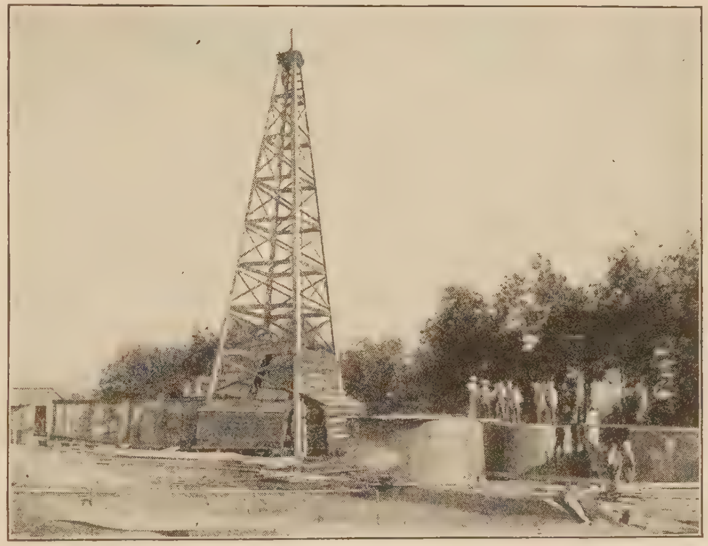
Great Plains.

great highlands contain rich deposits of gold, silver, copper, and lead.

East of the Rocky Mountains the land slopes gradually eastward and forms for some distance an even plateau called the *Great Plains.* These plains are covered with a thin growth of grass and form good grazing lands for sheep and cattle. At one place they are broken by a mountain group called the *Black Hills.*

Coal Miners at Work.

The Atlantic coast is mostly a lowland called the *Atlantic Coast Plain.* This plain is very narrow in the north, but increases in width rapidly toward the south.



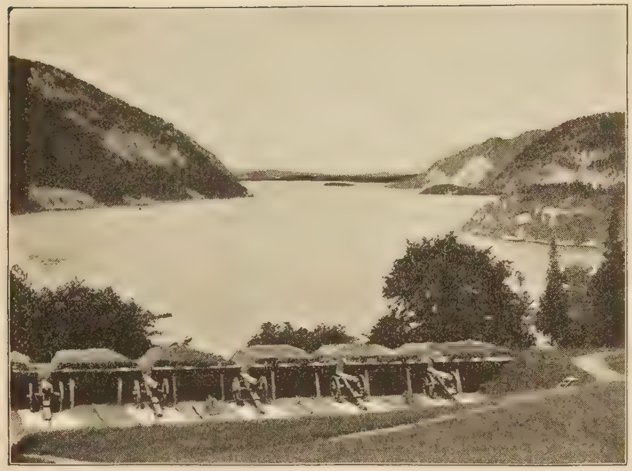
Petroleum Derrick and Tanks.

The Appalachian Mountains lie west of the coast plain, and are much lower in the central portions than in the north and south, where the peaks are about a mile high. The Appalachian ridges are parallel, with even tops, while the low plateau to the west is rendered rough and broken by the deep valleys of the streams. Streams have also cut deep notches, or *Water Gaps*, across many of the Appalachian ridges. These gaps are gateways through the mountains not only for the rivers, but also for roads and railroads.

Water Gap.

The Appalachian region is rich in coal, iron ore, petroleum, and natural gas.

Between the Appalachian Mountains and the Rocky Mountains lies the great central plain. It slopes gently on either side toward the Mississippi River. It also slopes toward the south. It is not perfectly smooth, but contains low hills and broad valleys. Much of it is excellent farming land. In the north, east, and south much of the land is covered with forests, but in the western part the



Hudson River.

Columbia River.

land is treeless, and consists of open grassy plains called *Prairies*. Many of the streams of the prairies, however, are fringed with woodlands.

Drainage. — The central plain of the United States is drained chiefly by the Mississippi River and its branches. The Mississippi-Missouri — measured from the mouth of the Mississippi up to the mouth of the Missouri and from there to the source of the Missouri — is longer than any other river in the world.

Many steamboats are always plying back and forth on the Mississippi, carrying the products of the North to the South, and those of the South to the North.

The whole region drained by the Mississippi River and its branches is often called the *Mississippi Valley*.

North of the Mississippi valley is a small valley drained by the Red River which flows north into Lake Winnipeg. This region was once the bottom of a large lake, and is very fertile.

The northeastern part of the central plain lies in the region of the Great Lakes, one of which lies wholly within the United States. The lakes form a part of the St. Lawrence River system, which is obstructed at many places by falls and rapids.

Canals, however, have been made around these obstructions, so that one can sail from the head of Lake Superior to the Gulf of St. Lawrence and then out into the Atlantic Ocean. The Great Lakes form one of the most useful highways for steamboat travel and transportation of goods in the United States.

The rivers of the Atlantic slope generally rise in the Appalachian Mountains. Those in the north flow through water gaps. In their upper courses the streams flow rapidly and turn many mill wheels, but near the ocean their flow is sluggish, and many of them can be used for steamboat travel. The Hudson River is one of the most noted rivers of the Atlantic slope.

The short rivers of the Gulf slope, east and west of the Mississippi valley, are somewhat similar to those of the Atlantic slope.

On the Pacific coast most of the streams are short and are broken by falls and rapids.

In the north the Columbia rises in the Rocky Mountains and flows through a gorge in the Cascade Mountains. It is navigable both below and above the rapids in the gorge. Snake River, its chief branch, also flows through a canyon.

The Colorado in the south is one of the most remarkable rivers of the world. Its source is in the high Rocky Mountains, but it flows through a very dry region. In its middle course the river has cut down its bed to form a narrow canyon about a mile deep, through which the river rushes in a succession of rapids and waterfalls.

The plateau between the Wasatch Mountains and the Sierra Nevada, and south of the Snake River, is called the Great Basin.

Desert Scene.

Little rain falls in this region, except on the high mountain tops. The streams, therefore, have their sources in the high mountains, but flow out into the lower plateau, where their waters either are lost in the hot sands or flow into lakes which have no outlets. None of the streams reach the sea; hence the region is called a region of *interior drainage.* The waters of most of the lakes are so salt and bitter that no fish and few other animals can live in them. The largest lake is the Great Salt Lake, which is one of the saltest bodies of water in the world.

West of the Sierra Nevada lies the great Valley of California. This is drained by two important rivers which flow into San Francisco Bay.

Heat and Rainfall. — The United States has a great variety of climate. In Florida snow and frost are rarely seen, and tropical plants grow and flowers are in bloom out of doors all the time; while in the Red River valley in the north, snow lies on the ground for half the year.

The coldest winters occur on the Great Plains in the extreme north, while the hottest summers occur in the extreme southwest, near the mouth of the Colorado River.

Along the Pacific coast the winds blow from the southwest and west, and, having the same heat as the ocean, they make the summers cool, and the winters warmer than they would otherwise be. Frost and snow are rare here on the lowlands, and in some parts the flowers bloom as in Florida.

In the eastern part of the United States the heat varies more than on the Pacific coast, because the winds sometimes blow from cold lands and at other times from warm lands or from waters.

The sea winds of the Pacific coast are laden with moisture, and as the air rises in passing over the high mountains, the moisture is dropped as rain or snow. Thus much of this coast has copious rainfall, and plants can grow in great abundance.

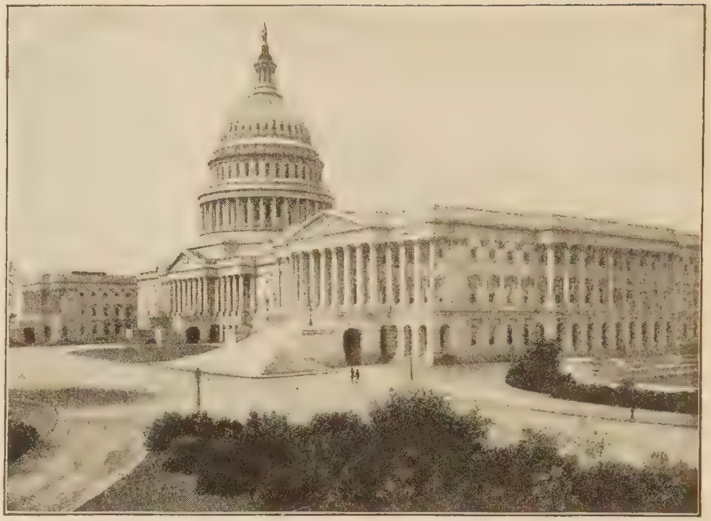
After passing over the high mountains, the winds contain little moisture, and so the great plateau region receives little rainfall except on high mountains. It is so dry, or *arid,* that few plants thrive there. Some parts of it are so arid that they are true *deserts.*

Just east of the Rocky Mountains the rainfall is small, but farther east the winds blow from the south as well as the southwest. The winds from the Gulf of Mexico bring sufficient rain to the eastern half of the United States to make it one of the finest farming regions in the world.

Thus we can divide the United States into three belts, — the moist Pacific coast region, the dry western highlands, and the moist eastern lowlands.

History and Government. — About 130 years ago all the land east of the Mississippi River belonged to Great Britain.

West of the Appalachian Mountains at that time the only people were roaming tribes of Indians; but English settlers occupied the land east of the Appalachian Mountains. Here they had made thirteen different groups of settlements, called *Colonies*. These stretched along the Atlantic coast from Nova Scotia to Florida.



THE CAPITOL, WHERE CONGRESS MEETS.

These colonists rebelled against Great Britain, fought the Revolutionary War, and became thirteen independent states. They then united to form the republic of the United States, but each state continues to govern itself in local matters.

The laws of the United States are made by *Congress*, a body which consists of men elected from each state; and these laws are enforced by a *President* who is elected every four years by men chosen for the purpose by the people.

The state laws are made by a *State Legislature* composed of men elected from different parts of the state; and they are enforced by a *Governor* who is elected by the people of the state.

The city in which the laws of a country are made and in which the chief government officers live is called the *Capital* of that country. Each state of our Union has a capital, while Washington city is the capital of the whole nation.

Great Britain gave up to the United States the land as far west as the Mississippi River. The unsettled land west of the Appalachian Mountains was controlled by Congress, and was called *Public Land*. To it was afterwards added all the land between the Mississippi River and the Pacific.

THE WHITE HOUSE, WHERE THE PRESIDENT LIVES.

When enough people had settled in any section of the public land, that part was separated from the rest and admitted into the United States as a new state. There are now 45 states in the Union, and the remaining public land has been divided for convenience into four territories which will probably sometime be admitted as states. Besides these, there are Alaska, Hawaii, and some other outlying possessions.

Sections. — In the moist eastern lowland of the United States, and in the moist Pacific coast lowland, the soil is generally fertile, and farming is the most important occupation.

The dry western highlands are adapted to mining, grazing, and some lumbering, while the lower and moister Appalachians are adapted to mining, lumbering, and some farming and grazing.

In the southern part of the eastern lowlands, the climate is moist and warm, and cotton is the chief crop. In the northern half, the cooler climate is favorable to raising food plants, such as wheat, corn, and oats. The Pacific coast with its even heat is adapted to wheat growing and fruits, so it also is a food-producing section. The northeastern part of our country is less fertile than the interior, but is near rich coal mines and has good water powers and excellent harbors; therefore manufacturing and commerce are the leading industries in that region.

Harvesting and Thrashing Wheat.

Hence we may divide the United States into five great sections as shown on the map (pp. 32, 33): —

1. Northeastern or manufacturing section.
2. Northern or food-producing section.
3. Southern or cotton-growing section.
4. Western or grazing and mining section.
5. Pacific or western farming section.

Cities and Towns. — The United States contains many cities and towns, especially in the northern and northeastern sections. These cities and towns are the centers of manufacturing and commerce, and are usually located at some place that has special advantages for commerce, as on a navigable river or safe harbor, or at some railroad crossing, or at a place that has some special advantages for manufacturing, as near coal mines, or at some water power. Nearly all the cities and towns of the country are connected with one another by railroad. The United States contains about half the length of railroad in the whole world. The railroads are much more numerous in the eastern than in the western half of the country.

Picking Cotton.

TEST EXERCISES FOR REVIEW

Where is the United States? Describe its extent and size. What outlying possessions has it? Compare its east coast with its Gulf coast and Pacific coast.

Describe as fully as possible the surface of the western half of the United States. What and where are the Great Plains? What can you say of the surface in the eastern half of the United States? Describe the Atlantic Coast plain; the Appalachian Mountains; the great central plain. Compare the Appalachians and the Rocky Mountains in height.

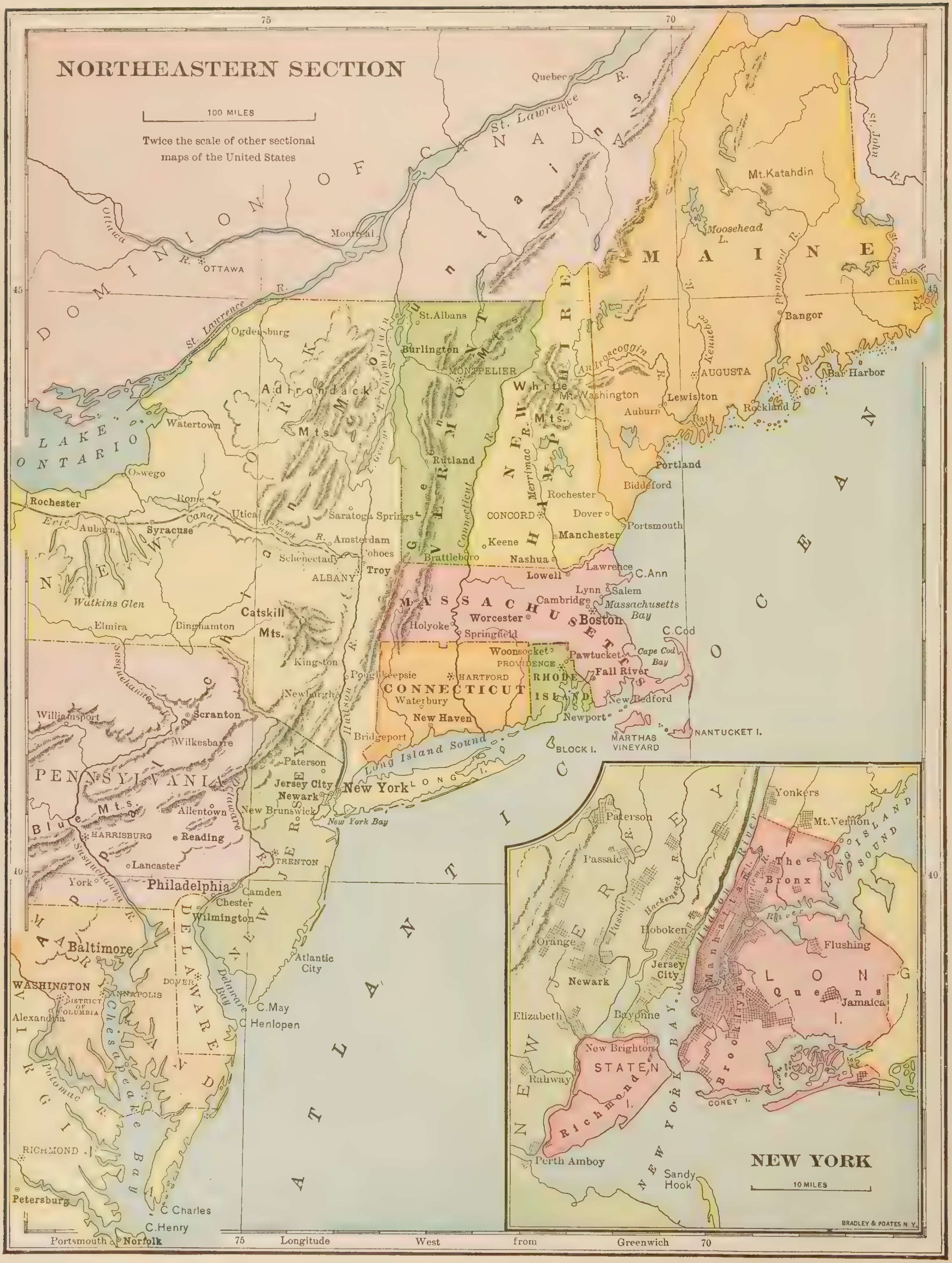
Tell all you can of the chief river system of the United States. What is meant by the Mississippi valley? Tell what you can of the system and basin of the Red River; of the St. Lawrence River and the Great Lakes; of the short rivers of the Atlantic and Gulf slopes; of the Columbia River; of the Colorado River. Describe the Great Basin region.

Describe the climate of the United States as to heat and cold; as to moisture and dryness. Why is the climate of the west coast more equable than that of the eastern part of the country? Explain why the moist regions are moist and the dry regions dry. Where do the clouds which water the eastern half of the United States get their moisture?

How did the United States come to be formed? Describe its form of government. What is the public land? Into what is it now divided?

Why do occupations or industries differ in different parts of the country? Into what five great industrial regions may the country be divided? What are the characteristic industries in each? In what occupations are people of towns and cities chiefly engaged? Where are cities usually located? Tell all you can about the railroads of the United States.

NORTHEASTERN SECTION


100 MILES
Twice the scale of other sectional maps of the United States
75
70
45
40
DOMINION OF CANADA
Quebec
St. Lawrence R.
Montreal
OTTAWA
Ottawa R.
St. Lawrence R.
St. John R.
St. Croix R.
Calais
MAINE
Mt. Katahdin
Moosehead L.
Penobscot R.
Kennebec R.
Bangor
AUGUSTA
Bar Harbor
Lewiston
Auburn
Rockland
Bath
Portland
Biddeford
Androscoggin R.
NEW HAMPSHIRE
White Mts.
Mt. Washington
Merrimac R.
Rochester
Dover
CONCORD
Keene
Manchester
Portsmouth
Nashua
VERMONT
Green Mts.
St. Albans
Burlington
MONTPELIER
Rutland
Brattleboro
Connecticut R.
L. Champlain
L. George
NEW YORK
Adirondack Mts.
Ogdensburg
LAKE ONTARIO
Watertown
Oswego
Rochester
Rome
Utica
Auburn
Syracuse
Erie Canal
Mohawk R.
Saratoga Springs
Amsterdam
Cohoes
Schenectady
Troy
ALBANY
Watkins Glen
Elmira
Binghamton
Catskill Mts.
Kingston
Poughkeepsie
Newburgh
Hudson R.
MASSACHUSETTS
Lawrence
C. Ann
Lowell
Lynn
Salem
Cambridge
Massachusetts Bay
Boston
Worcester
Holyoke
Springfield
C. Cod
Cape Cod Bay
Woonsocket
PROVIDENCE
Pawtucket
Fall River
New Bedford
RHODE ISLAND
Newport
CONNECTICUT
HARTFORD
Waterbury
New Haven
Bridgeport
Long Island Sound
LONG I.
BLOCK I.
MARTHAS VINEYARD
NANTUCKET I.
ATLANTIC OCEAN
PENNSYLVANIA
Williamsport
Scranton
Wilkesbarre
Susquehanna R.
Allegheny Mts.
Blue Mts.
Allentown
HARRISBURG
Reading
Lancaster
York
Philadelphia
Delaware R.
NEW JERSEY
Paterson
Jersey City
Newark
New York
New Brunswick
New York Bay
TRENTON
Camden
Chester
Wilmington
Atlantic City
C. May
C. Henlopen
DELAWARE
DOVER
Delaware Bay
MARYLAND
Baltimore
ANNAPOLIS
WASHINGTON
DISTRICT OF COLUMBIA
Alexandria
Chesapeake Bay
Potomac R.
VIRGINIA
RICHMOND
Petersburg
C. Charles
C. Henry
Portsmouth
Norfolk
75
Longitude West from Greenwich
70
NEW YORK
10 MILES
Yonkers
Mt. Vernon
LONG ISLAND SOUND
Paterson
Passaic
Passaic R.
Hackensack R.
Hudson River
Harlem R.
The Bronx
East River
Hoboken
Orange
Newark
Jersey City
Manhattan
Flushing
LONG I.
Queens
Jamaica
Elizabeth
Bayonne
NEW YORK BAY
Brooklyn
New Brighton
STATEN I.
Richmond
Rahway
CONEY I.
NEW JERSEY
Perth Amboy
Sandy Hook
BRADLEY & POATES N.Y.

THE NORTHEASTERN SECTION, OR NEW ENGLAND

EXERCISES ON THE MAP

Location. — Name the six northeastern states of our country. What state is west of this section?

Coast. — Is the coast regular or irregular? Name two bays and a sound on the coast; two capes; four islands. Which state does each island lie opposite? The largest of these islands belongs to New York. Off the coast of which state are many small islands?

Surface. — What part of this section is mountainous? Name two mountain ranges. In what states does each lie? To what system do these ranges belong? Name and locate two peaks.

Drainage. — In what direction does northwest Vermont slope? How does the rest of the section slope? Trace the divide between these slopes. What lake borders northwestern Vermont? In what great river basin is it? Name and describe the largest river on the Atlantic slope; four others. Name and locate the largest lake wholly in the section. What is its outlet?

Divisions. — Where is Maine? What rivers are on its boundaries? Name three others. In what part of the state are the cities? Name and locate the capital; three other important cities.

Where is New Hampshire? What river is in the central part? What mountains are in the state? Name and locate the capital; two other important cities.

What state is west of New Hampshire? How is it separated from that state? What mountains are in Vermont? Name and locate the capital; two other cities.

Rocky Coast.

White Mountains.

Where is Massachusetts? What river crosses the state? In what part of the state are there mountains? What two islands belong to the state? Locate the capital; three other important cities; Cambridge; Lynn.

Where is Rhode Island? What island belongs to this state? Name and locate the capital.

What state is west of Rhode Island? What river crosses this state? Into what does it flow? Name and locate the capital; two cities on the coast.

DESCRIPTION

New England. — The six states in the Northeastern Section of our country are called the New England States. They are all small, the whole section being smaller than a number of single states in the Union.

Coast. — The coast is very irregular, containing many bays. Along the coast of Maine there are numerous rocky islands and bold projecting headlands.

Surface. — The surface is so rough and stony that there is little land suitable for farming except in the river valleys. The White Mountains in New Hampshire contain Mount Washington, which is more than a mile high and is snow-capped for much of the year. The Green Mountains in Vermont and Massachusetts comprise several ranges and are beautifully wooded with evergreens. Besides these ranges there are a number of isolated peaks like Mount Katahdin in Maine.

Drainage. — Most of the surface slopes southward and is drained to the Atlantic by several important streams. Owing to the broken surface, the streams have many falls and rapids, which are used for turning much machinery. The Merrimac turns more mill wheels than any other river in New England.

West of the Green Mountains the land slopes toward Lake Champlain, whose outlet flows northward into the St. Lawrence.

In northern New England are many beautiful lakes. Maine especially has hundreds, abounding in trout and other fine fish.

Climate. — The winters are cold, stormy, and snowy. In the north deep snows fall and often lie on the ground for five months, while in the south it is somewhat milder, owing to the influence of the ocean; but the ocean also makes the summers cooler than in many of the northern states farther inland.

People. — The northern part is forest-covered and thinly settled. The southern part, however, contains many cities and towns, and is the most thickly settled part of our country.

Lake Champlain.

New England was settled largely by Puritans from England. They were noted for their honesty, industry, and intelligence. They established good schools and founded colleges, and to this day this section is noted for the interest taken in education.

Manufacturing is the chief industry. More cotton and woolen goods and boots and shoes are made here than in all the rest of our country. Besides this, New England is noted for the great variety of its manufactures. Much leather is tanned in Massachusetts, lumber and wood pulp are produced in the north, ships are built in some of the coast cities, and paper, machinery, rubber goods, silks, bicycles, plated ware, knives and forks, clocks, watches, and jewelry, guns, revolvers, cartridges, pins, needles, and buttons are made in the cities of southern New England.

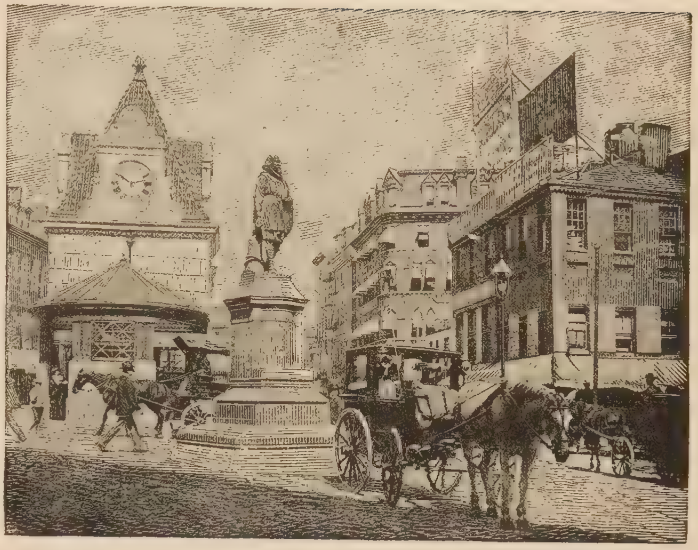
Other Industries. — The soil and climate not being well suited to farming, the people raise only a small part of the food they use, though good crops of hay, potatoes, tobacco, and vegetables are raised in the river valleys.

Shoe Factory.

Lumbering is an important industry in the north, and in many parts of the section marble, granite, slate, mica, and sandstones are quarried in large quantities.

The catching and curing of codfish and mackerel employ many people and a large fleet of ships, especially from Massachusetts.

The Commerce of this section is very large. Food, coal, and raw materials are brought to New England and exchanged for manufactured goods. Southern New England is covered with a network of railroads connecting the cities and towns. A railroad tunnel four miles long has been bored through the mountains in western Massachusetts so that food stuffs can more easily be brought in from the West, and manufactured goods more easily shipped out. Hundreds of ships also pass back and forth along the coast all the time.



SCOLLAY SQUARE, BOSTON.

Maine is largely covered with forests, which afford lumber and much wood pulp. Good crops of hay and potatoes are raised.

In summer many people visit this state because it is cool and because of the good fishing and the many places of interest along the coast.

Portland, the largest city, has a fine harbor. *Lewiston* has great cotton factories. *Bangor* is noted for its lumber trade.

New Hampshire contains beautiful mountain scenery which attracts many summer visitors. The granite quarries are important, and much cotton and many shoes are manufactured in this state.

Manchester and *Nashua*, the largest cities, are great centers of cotton manufacture.

Vermont is traversed by the Green Mountains, which afford much fine scenery. The state has no seacoast, but has considerable trade over Lake Champlain.

LOGS IN CONNECTICUT RIVER.

The chief occupations are dairy farming, lumbering, and quarrying marble, granite, and slate.

Burlington has a fine harbor and is a great lumber market, and *Rutland* is near the largest marble quarries in the United States.

Massachusetts has greater wealth and population than any other state in New England, and in it are manufactured more cotton cloth, and more boots and shoes, than in any other state in the Union. Woolen goods, machinery, leather, and paper are other important manufactures.

Boston, the capital, is the largest city in New England. It contains many buildings of historical interest. *Cambridge* contains Harvard University, the first college established in our country. *Worcester*, *Fall River*, *Lowell*, and several other large cities are noted for their great factories, and *Lynn* is famous for the manufacture of shoes.

Rhode Island is the smallest but most thickly settled state in the Union. It is a busy manufacturing state.

Providence, the capital, is the second city in New England, and has great woolen, cotton, and jewelry factories.

Connecticut has a more regular coast line than the rest of New England.

The manufactures are exceedingly varied, as clocks, plated ware, rubber shoes, thread, buttons, bicycles, pins, needles, and knives.

New Haven is the largest city and the seat of Yale University. *Hartford* and *Bridgeport* are noted manufacturing centers.

TEST EXERCISES FOR REVIEW

Where and what are the New England States? What is said of their size?

Describe the coast of the section; the surface; the drainage of the two main slopes; the climate.

What is said of the people of New England? What is the chief industry? Mention some other industries.

Describe each of the New England States and locate and characterize the chief cities in each.

THE NORTHERN SECTION

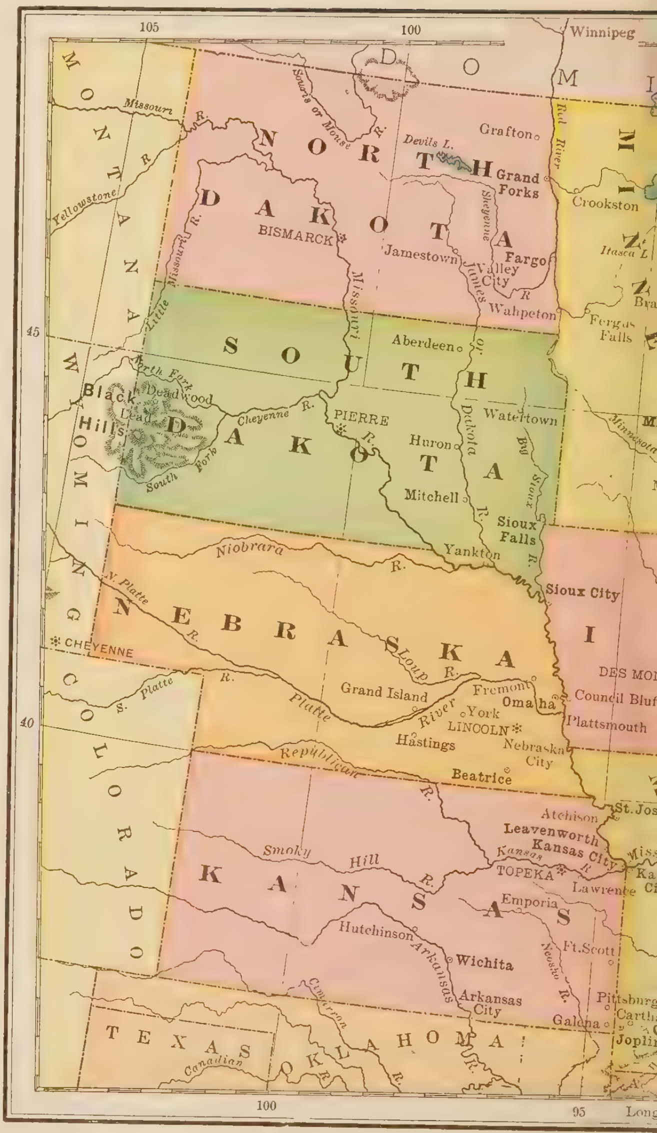
EXERCISES ON THE MAP

Location. — Make a list of the twenty states in this section. In what part of the United States is it? (See map p. 33.) Name four great lakes on its northern border. What three bays and island are on the east coast?

Surface. — What mountain system is in the eastern part? Name two ranges. What hills are in the extreme west? What mountains are in the southwest? What is the character of most of the section?

Drainage. — What great river flows south through the center of the section? What large western tributary does it receive? what large eastern tributary? What is the outlet of the Great Lakes? In what river basin, then, do they lie? What river flows north in the northwestern part of the section? What river flows to New York Bay? to Delaware Bay? What three rivers flow to Chesapeake Bay?

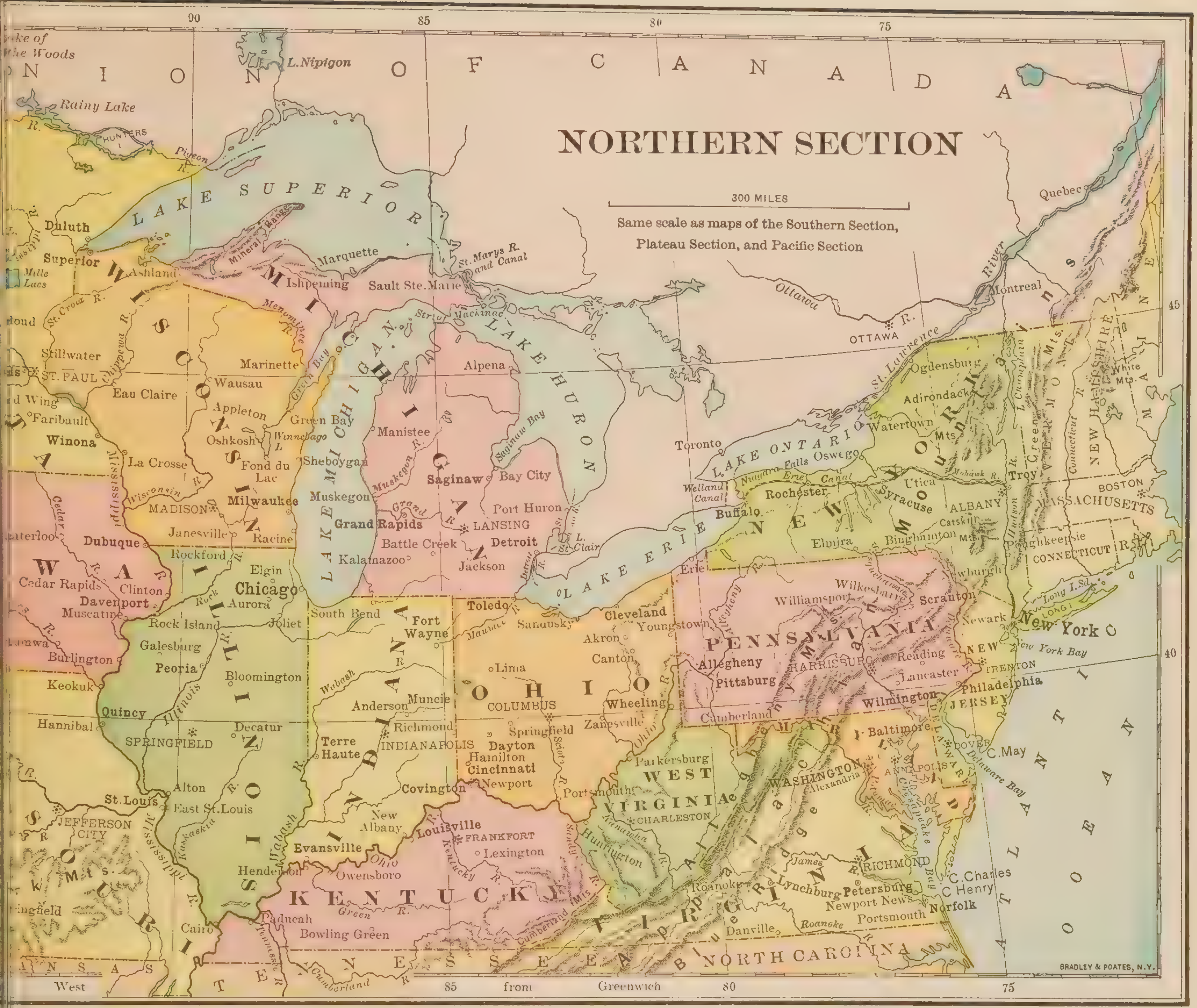
Divisions. — Name the seven states crossed by the Atlantic Coast plain or the Appalachian Mountains. These are sometimes called the *Middle States*. Name the six states between the Middle States and the Mississippi River. These are sometimes called the *East Central States*. Name the seven states that lie wholly or partly west of the Mississippi River. These are sometimes called the *West Central States*.


105
100
Winnipeg
MONTANA
Missouri R.
Yellowstone R.
Little Missouri R.
Souris or Mouse R.
Devils L.
Grafton
NORTH DAKOTA
BISMARCK
Jamestown
Sheyenne R.
James R.
Valley City
Fargo
Grand Forks
Red River
Crookston
Wahpeton
Fergus Falls
Itasca L.
45
SOUTH DAKOTA
Aberdeen
Black Hills
Deadwood
Lead
North Fork
South Fork
Cheyenne R.
PIERRE
Watertown
Huron
Dakota or James R.
Big Sioux R.
Mitchell
Sioux Falls
Yankton
WYOMING
Niobrara R.
N. Platte R.
CHEYENNE
NEBRASKA
Loup R.
Sioux City
DES MOI
Grand Island
Fremont
Omaha
Council Bluf
S. Platte R.
Platte River
York
LINCOLN
Plattsmouth
Hastings
Nebraska City
Beatrice
40
COLORADO
Republican R.
Atchison
St. Jos
Leavenworth
Kansas City
Kansas R.
TOPEKA
Lawrence
Smoky Hill R.
KANSAS
Emporia
Hutchinson
Arkansas R.
Wichita
Ft. Scott
Neosho R.
Pittsburg
Carth
Arkansas City
Galena
Joplin
TEXAS
Canadian
OKLAHOMA
Cimarron R.
100
95
Long

DESCRIPTION

Location. — The Northern Section extends westward from New England and the Atlantic Ocean nearly to the Rocky Mountains, and from the Great Lakes southward to the mouth of Chesapeake Bay and the Ozark Mountains. It is the great food-producing section of the country.

Coast. — The low, sandy coast is visited each summer by thousands of people, who come to enjoy the cool sea air and the fine


NORTHERN SECTION
300 MILES
Same scale as maps of the Southern Section, Plateau Section, and Pacific Section
DOMINION OF CANADA
LAKE SUPERIOR
LAKE MICHIGAN
LAKE HURON
LAKE ONTARIO
LAKE ERIE
ATLANTIC OCEAN
WISCONSIN
MICHIGAN
ILLINOIS
INDIANA
OHIO
IOWA
MISSOURI
KENTUCKY
TENNESSEE
WEST VIRGINIA
VIRGINIA
NORTH CAROLINA
PENNSYLVANIA
NEW YORK
NEW JERSEY
MARYLAND
DELAWARE
MASSACHUSETTS
CONNECTICUT
NEW HAMPSHIRE
VERMONT
Duluth
Superior
Ashland
Marquette
Sault Ste. Marie
St. Marys R. and Canal
ST. PAUL
Stillwater
Eau Claire
Winona
La Crosse
MADISON
Milwaukee
Racine
Chicago
Elgin
Aurora
Joliet
Rockford
Dubuque
Davenport
Rock Island
Peoria
SPRINGFIELD
Quincy
St. Louis
JEFFERSON CITY
Grand Rapids
LANSING
Detroit
Saginaw
Bay City
Toledo
Cleveland
COLUMBUS
Cincinnati
INDIANAPOLIS
Louisville
FRANKFORT
Lexington
Pittsburg
HARRISBURG
Philadelphia
Baltimore
WASHINGTON
RICHMOND
Norfolk
New York
TRENTON
ALBANY
Buffalo
Rochester
Syracuse
BOSTON
Montreal
Quebec
OTTAWA
Toronto
Adirondack Mts.
White Mts.
Green Mts.
BRADLEY & POATES, N.Y.
West from Greenwich
90
85
80
75
45
40

bathing. It is deeply indented by three important bays which contain some of the best harbors in the country.

Surface. — The surface near the coast is low, level, and sandy, rising gradually into a foothill region, and then into the parallel Appalachian ridges. Several ridges lie between the Blue Ridge and the Allegheny range, and are separated by broad, fertile valleys. West of the ridges is the Allegheny plateau region, which is made rough and broken by its many deep, narrow valleys. The isolated groups of the Adirondacks and the Catskills lie on the plateau in the north, and are much visited by tourists. Peaks of the Adirondacks and the Blue Ridge are over a mile high, but the plateau and most of the Appalachian ridges are less than half as high.

From the Allegheny plateaus the surface slopes gradually down to the Great Lakes and the Mississippi River; then it gradually slopes up again to the Great Plains on the western border of the section, where it is about as high as the Allegheny plateaus.

Niagara Falls.

The central plain in this section has a remarkably fertile soil and a smooth surface. It is broken only by gentle swells, and low bluffs along the streams; and by the Ozark Mountains and the Black Hills.

Drainage. — West of the Appalachian Mountains, most of the section is drained to the Gulf of Mexico by the Mississippi and its branches. These rivers furnish many miles of navigable water, and many fine water powers.

Many of the rivers of the Atlantic slope rise on the west side of the Appalachian ridges and flow through water gaps. These low gaps afford natural gateways of travel through the mountains. The chief rivers of this slope flow into deep bays which really form the lower courses of the streams.

The northern part of the section slopes mostly toward the Great Lakes; but a small region in the northwest is drained by Red River, and is in the basin of the Nelson River of Canada.

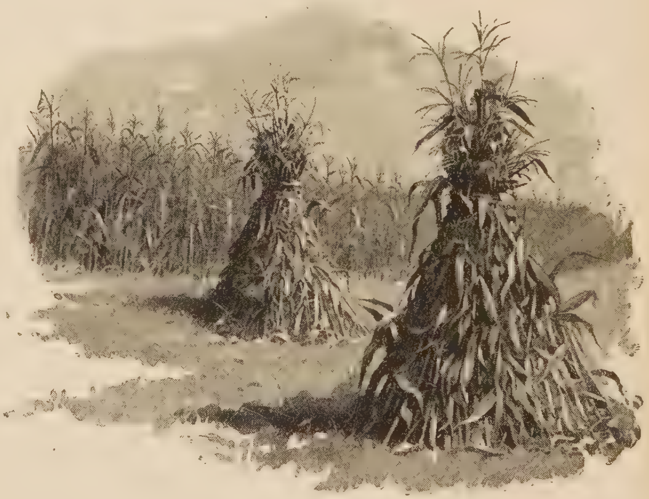
The northern part of the section contains thousands of small lakes, but its streams are small and unimportant. The Great Lakes, however, form very important trade routes.

Navigation is hindered between Lakes Superior and Huron by the "Sault," or rapids, in the St. Marys River, and between Lakes Erie and Ontario by the famous cataract, Niagara Falls. Canals, however, have been made around both of these obstacles.

Climate. — The winters in the section are cold, and snow lies on the ground for much of that season. The summers, however, are hot, with enough rain for grain, hay, vegetables, and fruits, except in the extreme west, where crops sometimes fail because of drought.

Vegetation. — In the north are extensive pine forests which supply valuable lumber.

The Appalachian region and much of the southern part of the section are covered with forests of oak, hickory, ash, and poplar, which yield timber for wagons, cars, agricultural machinery, and furniture. Much of the Ohio valley, however, and most of the region west of the Missouri, is a grassy prairie, on which few trees grow except along the streams.



Corn Field.

People. — More than half the people in the United States live in this section. The Atlantic Coast plain, especially toward the north, is about as thickly settled as southern New England. West of the Appalachian Mountains the section is less thickly settled. Many emigrants from Europe come to this country every year, and most of them settle in this section.

Copper Mine, Michigan.

Food Products. — Farming is the chief industry of the section, and wheat and corn are the most important crops. The northern part is best adapted for wheat, while the central and southern part is best adapted for corn.

Other food crops, such as rye, oats, hay, potatoes, vegetables, and fruit, are raised in abundance, as well as great quantities of tobacco, which is produced especially in the southern part of the section.

The animal food produced is scarcely less important than the plant food. Vast numbers of cattle and hogs are raised in the corn region, and on the grassy plains in the west great droves of cattle and sheep are herded. The oyster fisheries on the eastern coast are among the richest in the world.

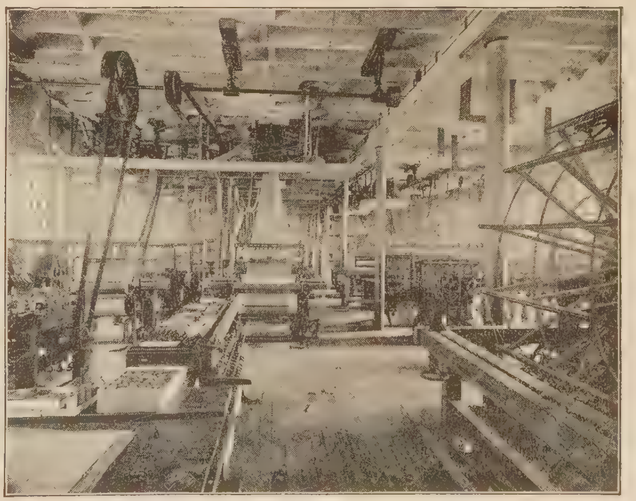
Mineral Industries. — Most of the coal and iron ore mined in the United States comes from this section. The richest iron-ore beds in the world are west and south of Lake Superior, in which region wonderfully rich mines of copper are also worked. The richest coal mines are in the Appalachian region, which also supplies more petroleum, or rock oil, than any other region in America. Most of our salt also comes from this section.

Manufacturing is another very important industry, especially in the northeast. Near the great coal fields, more iron and steel are made than in any other country in the world. The product is rolled into rails, beams, and plates and made into ships, engines, and machinery. From the petroleum is made the kerosene, or coal oil, which is used in almost every country on earth. In the east, near the fine harbors of the coast, many things are manufactured from raw materials that are brought by sea: cotton and woolen cloth, carpets, silk, refined sugar, rubber goods, etc.

In the west, near the forests and near the great grain and stock region, the chief manufactured articles are furniture and other wooden articles, flour, liquors, cured and packed meats, butter, cheese, and leather.

In all the large cities great quantities of clothing and tobacco are manufactured.

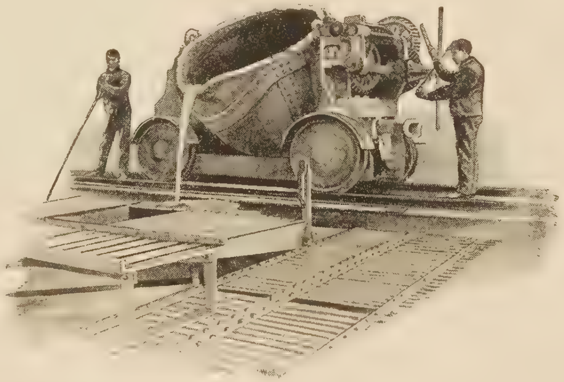
Commerce. — The great population and numerous productions give rise to very extensive commerce.



Silk Mill, Paterson, New Jersey.

Most of the freight is carried over railroads, which cover the section like a network. Considerable heavy freight is carried by the lakes and rivers, and by the canals which have been dug to connect them. The most famous of these is the Erie Canal, which connects Lake Erie with the Hudson River.

Great quantities of wheat, flour, meat, kerosene, and other manufactures are shipped across the ocean from the harbors on the east coast.



STEEL WORKS, PITTSBURG, PA.

WEST WASHINGTON MARKET, NEW YORK CITY.

The Middle States (see map p. 45). — What three lakes border New York? What island belongs to it? What two mountain groups are in the State? What river is in the eastern part? What branch has the Hudson? Name and locate the capital; a city in the southeast; three other cities.

Where is New Jersey? What river borders it on the west? Name and locate the capital; another city.

Where is Pennsylvania? Describe its surface. Name two rivers in the state. Name and locate the capital; two cities in the east; two in the west. Where is Reading?

Where is Delaware? Name and locate the capital; another city.

Where is Maryland? What river separates it from Virginia? What bay is partly in the state? Describe the surface. The capital is on Chesapeake Bay. What is its name? What other city is on the bay? Locate the city of Washington.

Where is Virginia? What bay is in the east? Describe the surface. Name two rivers in the state. Name and locate the capital. Where is Norfolk?

Where is West Virginia? What rivers form its west boundary? Describe its surface. Name a river in the state. Name and locate the capital; a city in the north.

New York lies west of New England. It is often called the "Empire State" because it surpasses every other state in population, wealth, manufactures, and commerce.

Though manufacturing and commerce are the chief occupations, farming also is important, hay, butter, cheese, hops, and potatoes being the chief products.

New York city lies on several islands and the mainland at the mouth of the Hudson. It is the largest city and greatest seaport in America, as well as the greatest manufacturing city. Among its many manufactures, clothing and refined sugar are noted. *Buffalo*, at the western end of the Erie Canal, ships large quantities of grain, coal, and lumber. *Rochester* has great flour mills and shoe fac-

POTTERY, TRENTON, NEW JERSEY.

tories. *Syracuse* has rich salt springs. *Albany* is the capital.

New Jersey lies mainly in the low, level Atlantic Coast plain, and its soil is adapted to growing garden vegetables and fruits.

Silks, thread, rubber goods, pottery, kerosene, and jewelry are extensively manufactured.

Newark makes leather goods, thread, and jewelry. *Jersey City* (map p. 40) has slaughter-houses and machine shops. *Paterson* manufactures silks. *Camden* makes oilcloths and woolens. *Trenton* makes pottery.

Pennsylvania is traversed by the Appalachian ridges, within which are the richest anthracite coal fields of the world. West of the mountains are great deposits of bituminous coal, petroleum, and natural gas.

On account of its great coal supply and the cheapness with which the fine iron ore from Lake Superior can be brought into the state, Pennsylvania surpasses every other state in the production of iron and steel.

The lowlands and mountain valleys produce the important crops and dairy products for which the state is noted.

Philadelphia, the third city in the Union in population, is one of the leading cities in manufactures. It is especially noted for the making of woolens and cottons, carpets, and locomotives. *Pittsburg* and *Allegheny* are very important centers of iron, steel, and glass making. *Scranton* is a center of the anthracite coal region. *Reading* is in a farming region.

Delaware, one of the smallest states in our country, lies entirely in the coast plain.

In it fruits, sweet potatoes, and garden vegetables are extensively raised, and steel ships, cars, leather, gunpowder, and paper are manufactured.

BALTIMORE.

Wilmington, the largest city, contains nearly half the population of the state.

Maryland is separated into two parts by Chesapeake Bay, which contains the greatest oyster fisheries in our country.

The lowlands produce valuable food crops and much fine tobacco. In the west the mountains contain valuable coal mines.

The manufacture of tobacco and the canning of oysters, fruits, and vegetables are important industries.

Baltimore, noted for its manufactures, is a great food-shipping and canning center.

NATURAL BRIDGE, VIRGINIA.

The District of Columbia was given by Maryland to the United States as a site for the national capital, the city of *Washington*. This is the most beautiful city in the Union.

Virginia contains coal and iron mines in the west, and is traversed, west of the Blue Ridge, by the Great Valley, which is broad and fertile. In this region are the noted Natural Bridge and the beautiful Luray caverns.

Tobacco Factory, Richmond.

Tobacco is the most noted crop of the state, but grain, peanuts, and early vegetables are also important crops.

Richmond, the capital and largest city, has many tobacco factories. *Norfolk* has a fine harbor.

West Virginia is very rough in the east, but has a more even surface in the west.

The mountains are rich in coal, petroleum, and timber. The west is adapted to farming.

Wheeling is noted for iron, glass, and steel making.

East Central States (see map p. 45). — Where is Ohio? What waters are on its boundaries? Describe its surface. Describe two rivers in the state. Name and locate the capital; two cities in the north; two in the southwest.

Where is Indiana? What waters are on its boundaries? Describe the Wabash River. Name and locate the capital; a city in the northeast; one in the southwest.

Where is Illinois? What waters are on its boundaries? Describe three rivers in the state. Name and locate the capital; three other cities.

Where is Kentucky? What waters border it? What four rivers join the Ohio in the state? Describe the surface. Name and locate the capital. Where is Louisville?

Where is Michigan? What five lakes and two bays border it? What rivers and strait connect these lakes? What two rivers are in the state? What range is in the extreme north? Name and locate the capital; three other cities.

Where is Wisconsin? What two lakes and three rivers are on its boundaries? Name two rivers in the state. Name and locate the capital; a city at the head of Lake Superior.

Ohio is generally hilly in the east and south, but more even in the north and west.

The rich lowlands of the state produce large crops of wheat, corn, tobacco, and fruit. Much wool also comes from this state.

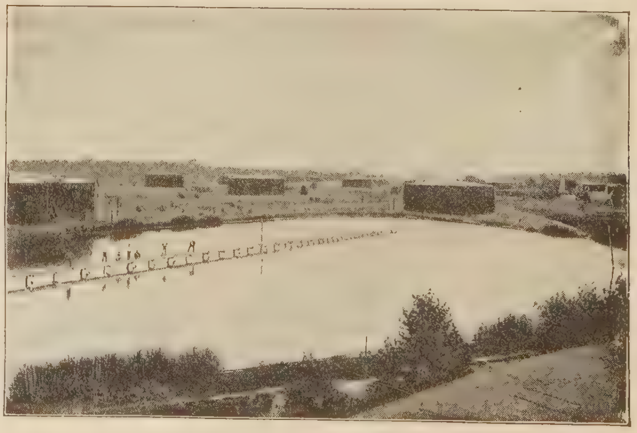
There are rich coal fields in the east, and petroleum and gas wells in the west, and Ohio is one of the leading states in the manufacture of iron and farm machinery.

Cleveland, the largest city, is an important lake port, and has great iron furnaces and oil refineries. *Cincinnati*, the second city, makes liquors, clothing, and machinery. *Toledo* is a lake port. *Columbus*, the capital, and *Dayton* are manufacturing cities.

Indiana lies in the great corn belt, and raises many hogs. Natural gas in the east, timber in the north, and the coal fields in the southwest make this state important in manufactures of many kinds.

Indianapolis is a great railroad center. *Evansville* and *Fort Wayne* are important cities.

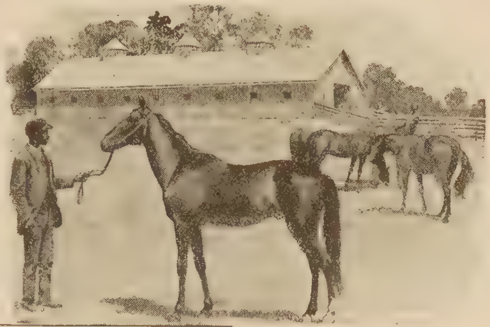
Illinois is often called the "Prairie State." It is the third state in the Union in population, and is one of the leading states in farm products and meats. Coal mining, man-



Oil Tanks, Ohio.

ufacturing, and meat packing are very important industries.

Chicago is the largest city in America except New York. It is the greatest railway center in the world, as well as the greatest market for meat and grain. *Peoria* and *Quincy* also are important cities. *Springfield* is in the coal region.



Blue Grass Stock Farm.

Chicago Stock Yards.

Kentucky contains coal and iron mines and fine hard-wood forests. The central Blue Grass region is famous for its fine horses.

Nearly half the tobacco of the United States is raised in this state. *Louisville* is a great tobacco market and manufacturing center.

Locks of the "Soo" Canal.

Michigan is divided into two peninsulas by Lake Michigan. The northern peninsula yields a large part of the iron ore and copper produced in the United States. The southern peninsula yields pine timber, salt, and wool, besides farm products.

The "Soo" Canal, which extends past the rapids in the St. Marys River, is used by many ships carrying iron ore, wheat, and other freight.

Detroit is well situated for trade and manufacture. *Grand Rapids* has many furniture factories. *Saginaw* is a lumber-producing center.

Wisconsin. — The southern part of Wisconsin lies in the prairie region, but there are heavy pine forests in the north.

Many of the farmers are thrifty Germans and Scandinavians. Iron mining and lumbering are the chief pursuits in the north.

Milwaukee ships grain and lumber, and manufactures beer, brick, and machinery. *Superior* is an important lake port.

West Central States (see map p. 44). — Where is Minnesota? What waters border it? What great river has its source in the state? In what small lake does it rise? What other river is in the state? What other lakes are in the state? Name and locate the capital. Locate Minneapolis; Duluth.

Where is Iowa? What waters are on its borders? What rivers cross the state? Name and locate the capital; three other cities.

Logs in a Wisconsin River.

Flour Mill, Minneapolis.

Salt Mine, Kansas.

Where is Missouri? Describe the surface. What rivers are on its borders? What ones traverse the state? Name and locate the capital; a city in the east; two in the northwest.

Where is Kansas? What river is on its border? What rivers traverse the state? Name and locate the capital. Where is Kansas City?

Where is Nebraska? What river is on its border? What rivers traverse the state? Name and locate the capital. Locate Omaha.

Where is South Dakota? Describe its surface. What rivers are on its borders? What rivers traverse the state? Name and locate the capital; a city in the east.

Where is North Dakota? What river is on its border? What rivers traverse the state? Name and locate the capital. Where is Fargo?

Minnesota is drained to the Gulf of Mexico, the Gulf of St. Lawrence, and Hudson Bay.

White pine forests cover the northeast. The west and south are fertile prairie land. This is a leading state in wheat growing, and ranks first in grinding flour. Lumbering and the mining of iron ore are also important.

Minneapolis has the greatest flour mills in the world. The mills are largely run by water power furnished by the Falls of St. Anthony. *St. Paul* is a great commercial city. *Duluth* is an important lake port.

Iowa is a level prairie and produces much corn, oats, and hay, and more hogs than any other state. Many cattle and horses are raised. Much coal is mined.

Des Moines is in the coal region. *Dubuque* has lumber mills. *Davenport* is a center of trade and manufacture. *Sioux City* packs much meat.

Missouri, in the north, resembles Iowa. The southern part forms the Ozark plateau, and contains hard-wood forests and deposits of zinc and lead. The chief products in the south are fruit, wool, and lumber. Coal is mined in the northwestern part of the state.

St. Louis, the largest city in the Mississippi basin, has a great railroad and river trade, and manufactures tobacco, beer, and machinery. *Kansas City* and *St. Joseph* are important commercial cities in the west.

Eads Bridge, St. Louis.

Kansas. — The east is a fertile prairie. The Great Plains in the west are dry and adapted to grazing.

Wheat Harvesting, North Dakota.

This state ranks high in corn and wheat growing and stock raising. Coal, zinc, lead, and salt are mined.

Kansas City is noted for meat packing. *Topeka* has great flour mills.

Nebraska resembles Kansas in its relief and industries.

Omaha is a trade and manufacturing center. *Lincoln* is an active trade center.

South Dakota. — In the east are low hills of gravel and sand, and in the west the summits of the Black Hills rise to a height of one and a half miles.

Wheat and flaxseed are the chief farm products. Gold and silver are mined in the Black Hills. There are stock ranches in the west.

Sioux Falls has fine water power.

Car Shops, Omaha.

North Dakota is diversified in the eastern half by low gravel hills; but the valley of the Red River is very smooth and even and contains large wheat farms.

Fargo is a railroad center.

TEST EXERCISES FOR REVIEW

Where is the Northern Section? What states does it include? Why are they grouped together? Describe the coast. Describe the surface. What is its character throughout the greater part of the section? What river system drains most of the section? What two great river systems drain the northern part? Tell what you can of the streams on the Atlantic slope; of the lakes of the section. Describe the climate.

Describe the vegetation of the section. Tell what you can of the inhabitants. Name the chief industry and its most important products; other important agricultural products. Mention the chief mineral industries. What is said of the chief manufactures? of commerce?

Describe each of the Middle States, and locate and characterize the chief cities in each. Do the same for each of the East Central States; for each of the West Central States.

Black Hills, South Dakota.

THE SOUTHERN SECTION

EXERCISES ON THE MAP

Location. — In what part of the United States is this section? (See map p. 33.) Make a list of its twelve subdivisions. What great bodies of water border it? What two sounds are on the east coast? What four bays and what lake are on the Gulf coast?

Surface. — What mountain system is in the eastern part of this section? Name two of its ridges. What mountains are in the extreme west? To what system do they belong? What mountains enter the north central part of the section?

Drainage. — What great river traverses the central part of this section? What are its chief branches? Trace through the section the divide of its basin. What river is on the southwest border of the section? Name five rivers between the Rio Grande and the Mississippi. Name four rivers flowing to the Gulf east of the Mississippi; five flowing to the Atlantic. What two rivers of the section belong to the Ohio basin? What part of the section contains many lakes and much swamp land?

Divisions. — Where is North Carolina? Describe its surface. In what river basin is the western part? Describe four rivers east of Blue Ridge. Name and locate the capital; three other cities.

Where is South Carolina? What waters are on its borders? What rivers cross the state? Name and locate the capital; the chief seaport.

Where is Georgia? What waters are on its borders? What rivers flow through the state? Name and locate the capital; three other cities.

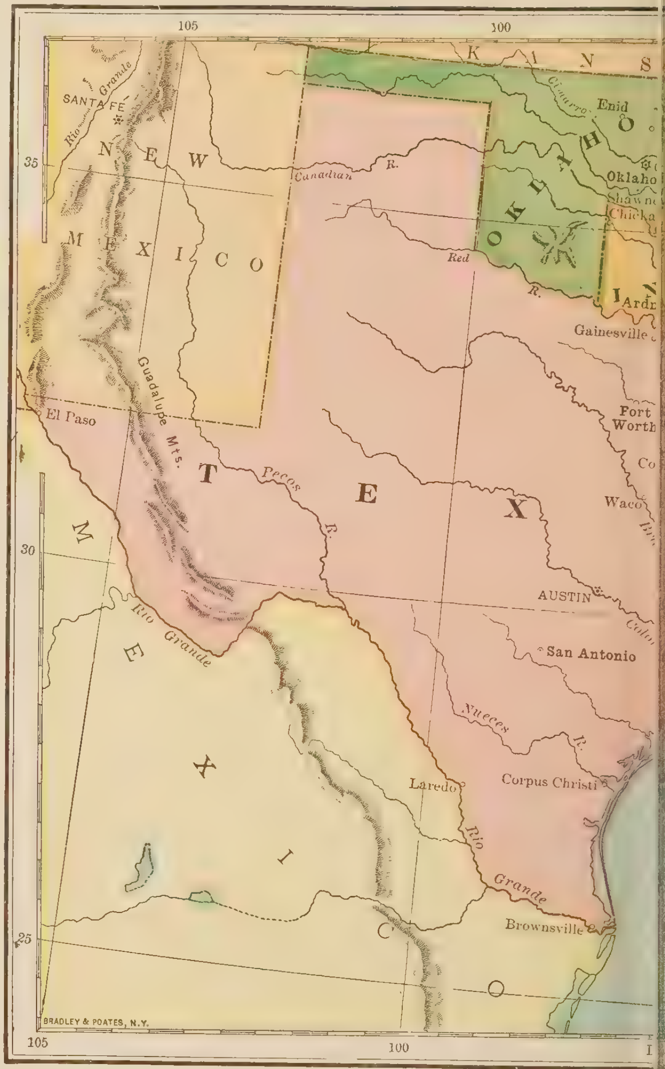
Where is Florida? What waters border the state? What islands, or keys, are at the south? What river in the state flows to the Atlantic? What two rivers flow to the Gulf? Name and locate the capital; another city in the north; three Gulf ports.

Where is Alabama? What bay is in the south? What rivers flow to this bay? What river is in the north? Name and locate the capital; two other cities.

Where is Mississippi? What waters are on its borders? What rivers traverse the state? Name and locate the capital; two other cities.

Where is Tennessee? Describe its surface. Describe two rivers which cross the state. Name and locate the capital; three other cities.

Where is Louisiana? Describe its coast. What rivers flow through the state? Name and locate the capital; another city on the Mississippi.



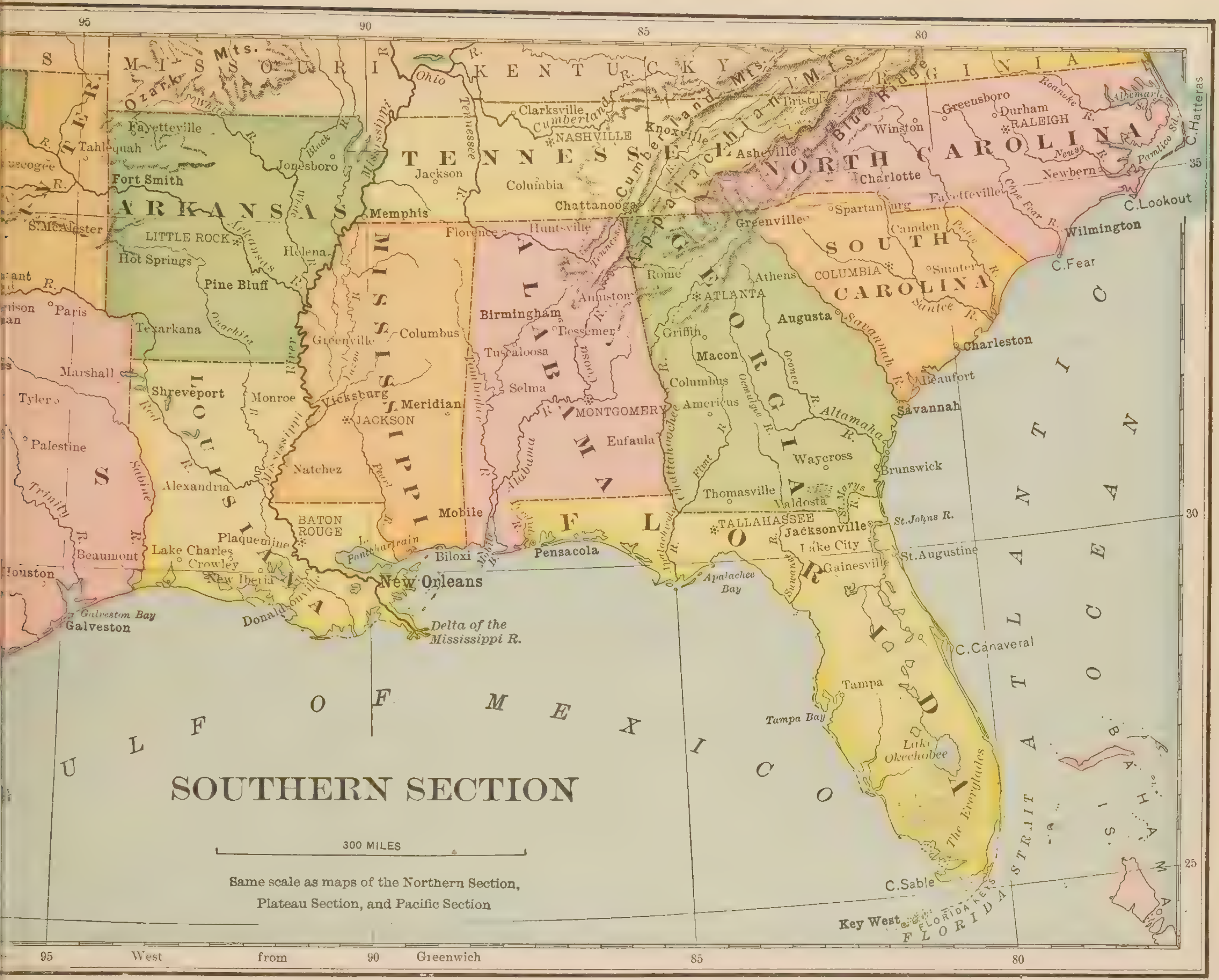
Where is Arkansas? What rivers are on its borders? Describe the surface. What rivers cross the state? Name and locate the capital.

Where is Texas? What waters are on its borders? Describe its surface. What rivers traverse it? Compare it in size with other states of the Union (see map p. 33). Name and locate the capital; three cities in the south. Where is Dallas?

Where is Indian Territory? Oklahoma Territory? What rivers cross these subdivisions? Name and locate the capital of Oklahoma.

DESCRIPTION

Location. — The Southern Section extends from the Atlantic Ocean to the base of the Rocky Mountains, and from the Ozark Moun-


SOUTHERN SECTION
300 MILES
Same scale as maps of the Northern Section,
Plateau Section, and Pacific Section
95
90
85
80
35
30
25
West
from
Greenwich
MISSOURI
KENTUCKY
VIRGINIA
TENNESSEE
NORTH CAROLINA
SOUTH CAROLINA
ARKANSAS
MISSISSIPPI
ALABAMA
GEORGIA
LOUISIANA
FLORIDA
GULF OF MEXICO
ATLANTIC OCEAN
BAHAMAS
FLORIDA STRAIT
FLORIDA KEYS
Ozark Mts.
Blue Ridge
Cumberland Mts.
Appalachian Mts.
Fayetteville
Tahlequah
Fort Smith
Jonesboro
LITTLE ROCK
Hot Springs
Pine Bluff
Helena
Texarkana
Paris
Marshall
Tyler
Palestine
Shreveport
Monroe
Alexandria
Natchez
BATON ROUGE
Plaquemine
Lake Charles
Crowley
New Iberia
Beaumont
Houston
Galveston
Galveston Bay
Donaldsonville
New Orleans
Delta of the Mississippi R.
Memphis
Jackson
Clarksville
NASHVILLE
Columbia
Chattanooga
Knoxville
Bristol
Huntsville
Florence
Greenville
Columbus
Vicksburg
JACKSON
Meridian
Biloxi
Mobile
Pensacola
Birmingham
Bessemer
Anniston
Tuscaloosa
Selma
MONTGOMERY
Eufaula
Rome
ATLANTA
Athens
Griffin
Macon
Columbus
Americus
Augusta
Waycross
Thomasville
Valdosta
TALLAHASSEE
Apalachee Bay
Jacksonville
Lake City
Gainesville
St. Augustine
Brunswick
Savannah
Beaufort
Charleston
COLUMBIA
Sumter
Camden
Spartanburg
Greenville
Asheville
Charlotte
Winston
Greensboro
Durham
RALEIGH
Fayetteville
Newbern
Wilmington
C. Fear
C. Lookout
C. Hatteras
Albemarle Sd.
Pamlico Sd.
Tampa
Tampa Bay
Lake Okeechobee
The Everglades
C. Canaveral
C. Sable
Key West
Ohio
Cumberland R.
Tennessee R.
Mississippi R.
Arkansas R.
White R.
Black R.
Red R.
Ouachita
Sabine R.
Trinity R.
Pearl R.
Yazoo R.
Tombigbee R.
Alabama R.
Coosa R.
Chattahoochee R.
Flint R.
Ocmulgee R.
Oconee R.
Altamaha R.
Savannah R.
Santee R.
Pedee R.
Cape Fear R.
Neuse R.
Roanoke R.
St. Johns R.
St. Marys R.
Suwanee R.
Apalachicola R.
L. Pontchartrain

tains to the Gulf of Mexico. It is not so large as the Northern Section, and contains less than half as many people.

Coast. — The coast is low and swampy and is bordered by barrier beaches, separated from the mainland by salt-water lagoons.

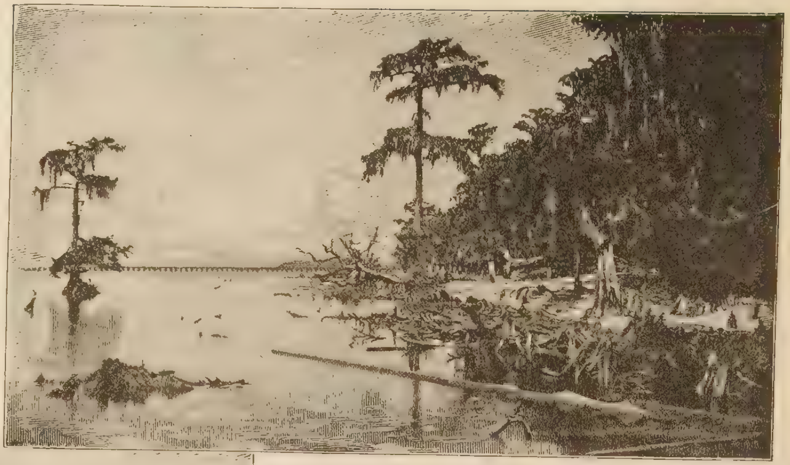
Surface. — The greater part of the surface is a plain sloping gently to the south and southeast. In the northeast the plain is broken by the Appalachian Mountains, which here attain their greatest elevation. Mount Mitchell, in North Carolina, the highest peak, is more than a mile high. West of the Mississippi, in the north, are spurs of the Ozark Mountains, and in the extreme west are ranges of the Rocky Mountains.

Drainage. — This section lies in the Gulf slope and the Atlantic slope.

By far the largest and most important stream is the Mississippi River.

The Mississippi flows through a low bottom land or flood plain about seventy miles wide, crossing the entire section from north to south. This flood plain is composed of fine rock waste brought down by the river and deposited here in times of flood, and is very fertile. It is so low that it would be flooded every year by the high waters of the river were it not for *levees* or embankments that have been built on the river banks to keep the high waters within the channel. The water, however, sometimes breaks through the levees and rapidly floods the surrounding plantations, drowning stock and destroying property. The break in a levee is called a *Crevasse.*

The Mississippi River carries large quantities of fine mud along with it, and where it flows into the quiet waters of the Gulf of Mexico the mud is dropped, forming a delta (see picture p. 17). This constantly grows larger and farther out into the Gulf.

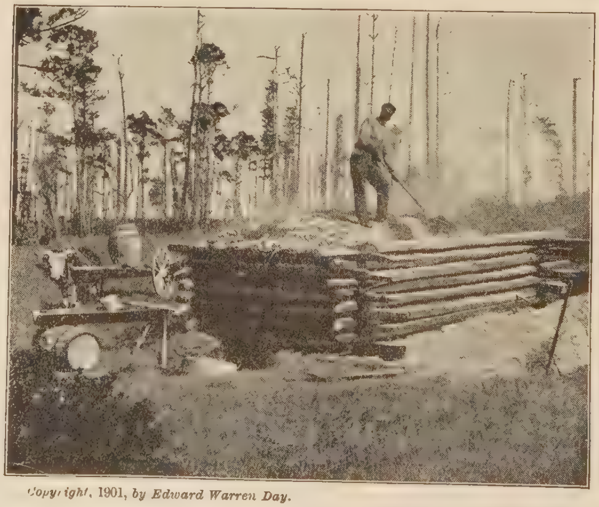


Lake Pontchartrain.

A Turpentine Distillery, Georgia.

After the Mississippi, the largest stream of the Gulf slope is the Rio Grande, but the Tennessee, Apalachicola, Chattahoochee, and Alabama are more important.

The rivers of the Atlantic slope rise in or near the Blue Ridge and flow in a southeastward direction. About halfway down their courses these rivers are interrupted by rapids, which afford good water power. Below the rapids some of the rivers are navigable.



Copyright, 1901, by Edward Warren Day.

Burning Tar, North Carolina.

There are many lakes in Florida and in the Mississippi bottom lands. The largest are Okechobee and Pontchartrain.

Climate. — The climate is warm and moist in the south and east. Snow rarely remains on the ground, and frosts seldom occur.

On the Great Plains, however, the climate is quite dry, with greater extremes of heat and cold.

Vegetation. — Except in the west, much of the section is covered with forests. In the north there are great forests of hard woods, such as oak, hickory, ash, and walnut, and in the south are fine forests of southern pine. This pine furnishes not only good lumber, but also tar, pitch, turpentine, and rosin, called *Naval Stores.*

The coast swamps and the flood plains along the rivers are covered with dense thickets of tall woody grasses called *Canebrakes*, and

Picking Cotton, Mississippi.

forests of cypress, gum, and live-oak trees. Red cedar, magnolia, and palmetto grow on the borders of the southern swamps.

The *Everglades* of southern Florida are an immense shallow lake which contains thousands of islands covered with trees and tropical plants.

Rice Field, Georgia.

The dry western part of the section is a nearly treeless but grassy plain.

People. — This section contains three times as many people as New England, but as it is so much larger it is not so thickly peopled.

In New England and the North nearly all the people are white, but many of them are foreigners, born in Europe. In the Southern Section nearly all the people are native-born; but more than a third of them are negroes, who are now free, but whose ancestors were brought here from Africa many years ago as slaves.

Industries. — Farming is the chief industry, and cotton is by far the most important crop in every state. The section produces four fifths of all the cotton raised in the world.

Tobacco Field, South Carolina.

Corn, sweet potatoes, and fruit are also important crops. Wheat and tobacco are cultivated in the north; and sugar cane, rice, and oranges are raised in the south.

Hogs are raised in many parts, and great numbers of cattle and sheep in the west.

Mining and Manufacturing. — Coal and iron ore are mined in considerable quantities in the Appalachian region, and some coal in the southwestern spurs of the Ozarks. Manufacturing is rapidly increasing in importance. The southern Appalachians form one of the great iron-manufacturing regions of the country, and on the Atlantic slope are many cotton mills and tobacco factories. In the lower Mississippi valley much cottonseed oil, raw sugar, and molasses are manufactured; and

Tobacco Factory, North Carolina.

in the southern forests of yellow pine much lumber is sawed and nearly all of the world's supply of turpentine and rosin is made.

The Commerce of the section is quite large, and its most important item is the shipping of raw cotton both to Europe and to New England and the Middle States. There are many railroads in the section, but much of the freight is sent by the rivers to the coast cities, where it is shipped by sea.

North Carolina is very mountainous in the west, and slopes eastward to a swampy coast indented by large sounds.

There are fine crops of grain, tobacco, fruits, sweet potatoes, and early vegetables, besides cotton. Much cotton, lumber, and tobacco are manufactured.

Wilmington is an important seaport. *Charlotte* and *Raleigh* have cotton and other factories. *Asheville* is a health resort.

South Carolina produces much rice, valuable "sea-island" cotton, and early vegetables. Much phosphate rock is dug and shipped for fertilizer. Much cotton is manufactured.

Charleston is one of the great seaports of the south. *Columbia*, the capital, has cotton factories.

Georgia is one of the leading states in the Union in the production of cotton, rice, peaches, and naval stores; it also does much manufacturing. It has coal and iron mines and valuable quarries.

Atlanta is a noted southern railroad center and manufacturing city. *Savannah* ships cotton, rice, and naval stores. *Augusta* and *Macon* have cotton mills.

Florida has many swamps and lakes. Early vegetables, fruits, and naval stores are produced.

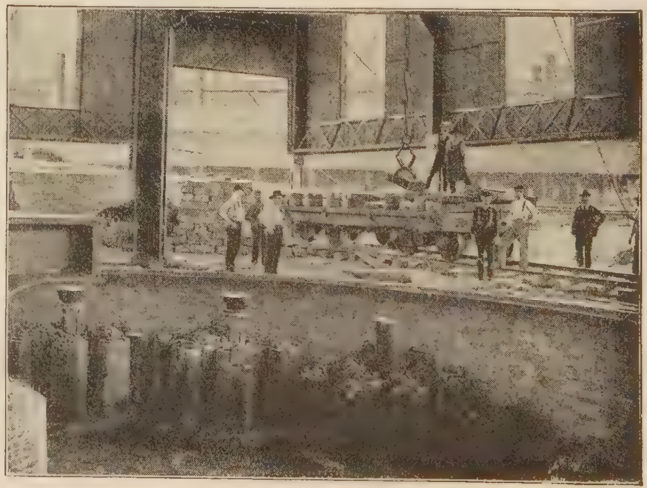
Jacksonville is a noted winter resort. *Key West* manufactures cigars. *Pensacola* and *Tampa* are important ports.

Alabama contains rich coal and iron mines, and manufactures more iron than any other southern state. It also ranks high in cotton, corn, peaches, and other farm products.

Mobile has a fine harbor, and ships much cotton. *Birmingham* is the great iron-manufacturing center. *Montgomery* is the capital.

Mississippi has no mountains, and much of its surface is a low, fertile flood plain. It is one of the greatest cotton-producing states.

Vicksburg and *Meridian* are trade centers.



Steel Works, Alabama.

Sugar Cane Plantation, Louisiana.

Tennessee is mountainous in the east, hilly in the center, and level in the west.

Iron and coal are mined in the east. The center and west are adapted to farming and stock raising.

Memphis is the largest city and an important river port. *Nashville* is the capital. *Knoxville* and *Chattanooga* have factories and mills.

Louisiana. — Much of the southern half lies in the swampy Mississippi delta.

This state produces much of the sugar cane and rice grown in our country.

New Orleans, the largest city in the South, is the greatest cotton market in the world.

Arkansas contains much fertile lowland, where corn, cotton, and peaches are grown. Much pine and hard-wood lumber is cut.

Little Rock is the largest city.

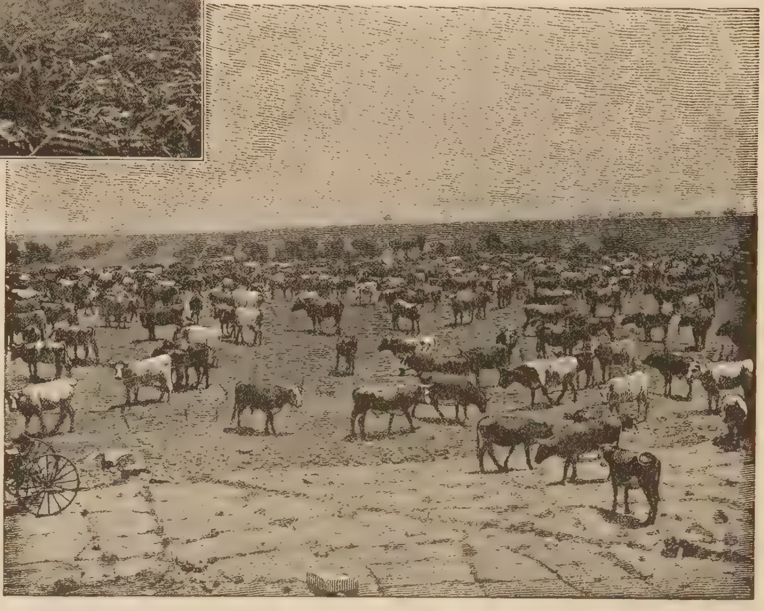
Texas is the most populous and the greatest cotton-growing state in the South.

The moist lowlands in the southeast furnish fine lumber, some sugar cane, and much cotton. The fertile prairies in the east are adapted to corn and wheat. On the table-land in the west cattle and sheep are raised.

There are petroleum wells in the southeast.

San Antonio, *Houston*, and *Dallas* are important commercial cities. *Galveston* has the best harbor on the coast. *Austin* is the capital.

Indian Territory is occupied chiefly by the Seminole, Choctaw, Cherokee, Creek, and Chickasaw Indian tribes. Some of these tribes have schools, churches, and farms.



Cattle Ranch, Texas.

Oklahoma. — The population is growing rapidly, and the people are engaged chiefly in agricultural pursuits.

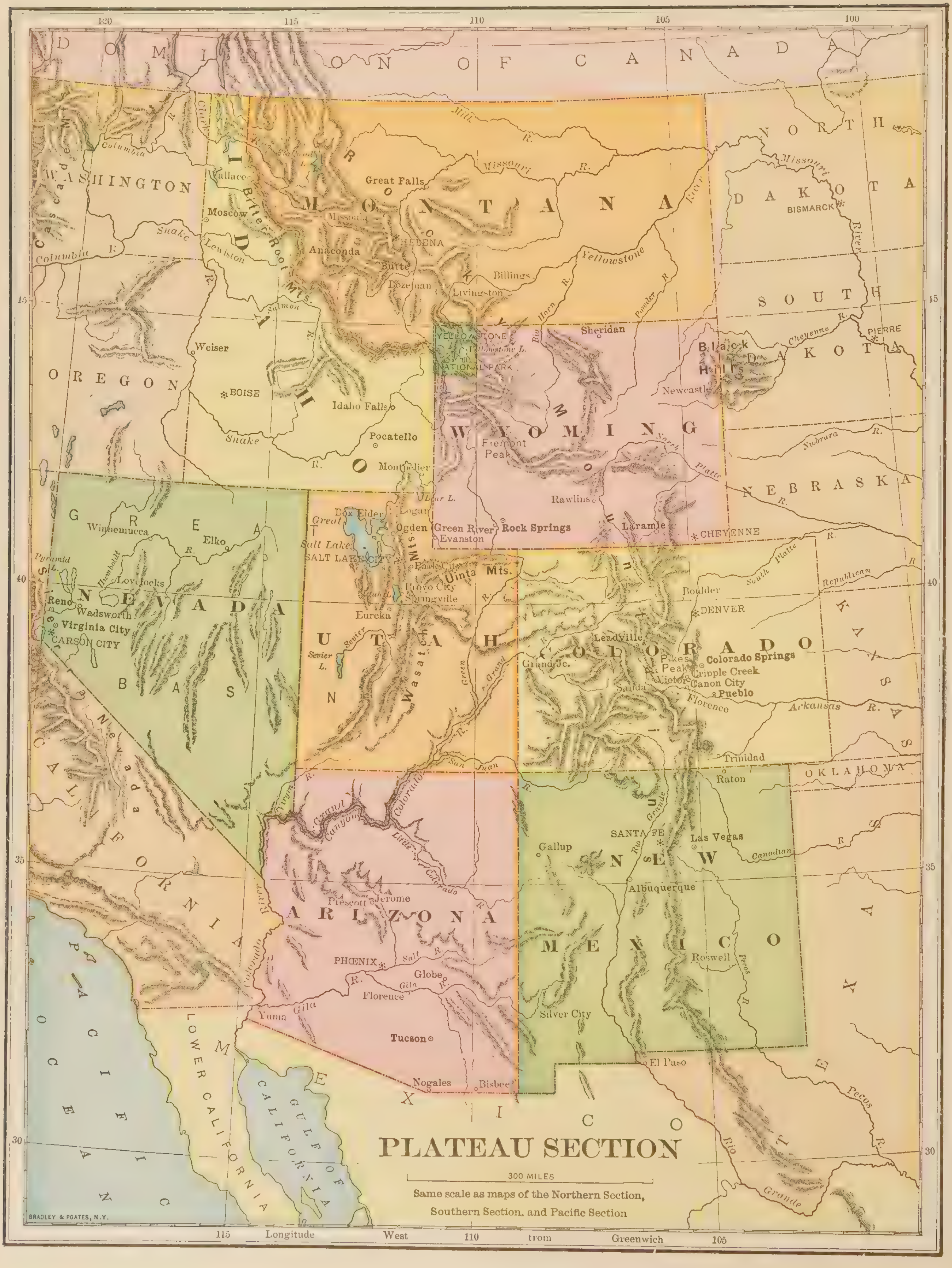
Guthrie is the capital.

TEST EXERCISES FOR REVIEW

Where is the Southern Section? What states and territories does it include? Describe the coast. Describe the general surface of the section. What two drainage slopes embrace the section? Tell what you can of the Mississippi River and its flood plain in the section. Mention some other important streams of the Gulf slope. What can you say of the streams on the Atlantic slope? Describe the climate.

Describe the forests of the section; the swamps; the vegetation of the dry western portion. Tell what you can of the inhabitants. Name the chief industry and its most important product. Mention some other important agricultural products. What is said of mining and manufacturing? of commerce?

Describe each division of the Southern Section and locate and characterize the chief cities in each.



DOMINION OF CANADA
WASHINGTON
OREGON
IDAHO
MONTANA
WYOMING
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
COLORADO
UTAH
NEVADA
GREAT BASIN
CALIFORNIA
ARIZONA
NEW MEXICO
LOWER CALIFORNIA
MEXICO
PACIFIC OCEAN
GULF OF CALIFORNIA
ROCKY MOUNTAINS
Bitter Root Mts.
Cascade Mts.
Sierra Nevada
Wasatch Mts.
Uinta Mts.
Black Hills
Fremont Peak
Pikes Peak
YELLOWSTONE NATIONAL PARK
Yellowstone L.
Great Salt Lake
Utah L.
Sevier L.
Bear L.
Pyramid L.
Columbia
Snake R.
Salmon R.
Clark
Milk R.
Missouri R.
Yellowstone
Big Horn R.
Powder R.
Cheyenne R.
Niobrara R.
North Platte
South Platte
Republican
Arkansas R.
Canadian R.
Pecos R.
Rio Grande
Green R.
Grand R.
San Juan
Colorado R.
Little Colorado
Grand Canyon
Virgin R.
Sevier
Humboldt R.
Salt R.
Gila R.
Wallace
Moscow
Lewiston
Weiser
BOISE
Idaho Falls
Pocatello
Montpelier
Great Falls
Missoula
HELENA
Anaconda
Butte
Bozeman
Livingston
Billings
BISMARCK
PIERRE
Sheridan
Newcastle
Rawlins
Rock Springs
Green River
Evanston
Laramie
CHEYENNE
Box Elder
Logan
Ogden
SALT LAKE CITY
Park City
Provo City
Springville
Eureka
Winnemucca
Elko
Lovelocks
Reno
Wadsworth
Virginia City
CARSON CITY
Boulder
DENVER
Leadville
Grand Jc.
Colorado Springs
Cripple Creek
Victor
Canon City
Pueblo
Salida
Florence
Trinidad
Raton
SANTA FE
Las Vegas
Gallup
Albuquerque
Roswell
Silver City
El Paso
Prescott
Jerome
PHŒNIX
Globe
Florence
Yuma
Tucson
Nogales
Bisbee
120
115
110
105
100
45
40
35
30
Longitude West from Greenwich
300 MILES
BRADLEY & POATES, N.Y.

PLATEAU SECTION

Same scale as maps of the Northern Section, Southern Section, and Pacific Section

THE PLATEAU SECTION

EXERCISES ON THE MAP

Location. — In what part of the country is the Plateau Section? Name the eight subdivisions embraced in it. What mountain range is west? What countries are on the north and south?

Surface. — What great mountain chain traverses the section? Name two peaks in this chain. What long range is in the northern part? What two ranges are in the central part? Trace across the section the main divide of the United States. In what direction does it extend?

Drainage. — Name the chief tributaries of the Mississippi in this section. What streams are in the Missouri basin? in the Arkansas basin? What other streams drain the section to the Gulf of Mexico? What rivers are on the Pacific slope in the north? What river system flows to the Gulf of California? Name its chief streams. Name two rivers whose waters do not reach the ocean. What is the region called in which these rivers flow? Name five lakes in that region. Name and locate another lake.

Divisions. — Where is Montana? Describe its surface. Locate its chief slopes and name the chief rivers on each. Locate the capital; Butte; Great Falls.

Where is Idaho? Describe its surface. Name its chief streams. Name and locate the capital.

Where is Wyoming? Describe the surface. Name the chief streams. Name and locate the capital. Where is Yellowstone National Park?

Where is Colorado? Describe the surface. Name the chief streams. Name and locate the capital; three other cities.

Where is Utah? Describe the surface. Name the streams and lakes. Name and locate the capital; another city.

Where is Nevada? Describe its surface. What is peculiar about the drainage? Name the chief stream. Name and locate the capital. Where is Reno?

Where is Arizona Territory? Describe the surface. Name the chief streams. Name and locate the capital; another city.

Where is New Mexico Territory? Describe its surface. Name its chief streams. Name and locate the capital; a city on the Rio Grande.

DESCRIPTION

Extent. — This section lies west of the center of the United States, and extends from the Great Plains to the Sierra Nevada, and from Canada to Mexico. It is a little larger than the Southern Section.

Surface. — The Rocky Mountains traverse the section. The plateau from which they rise is about a mile high, and in Colorado many of the peaks are nearly three miles high.

A Mountain Peak, Wyoming.

West of the Rocky Mountains is a series of plateaus, often separated from one another by long lines of cliffs, or short mountain ranges, or narrow canyons of great depth.

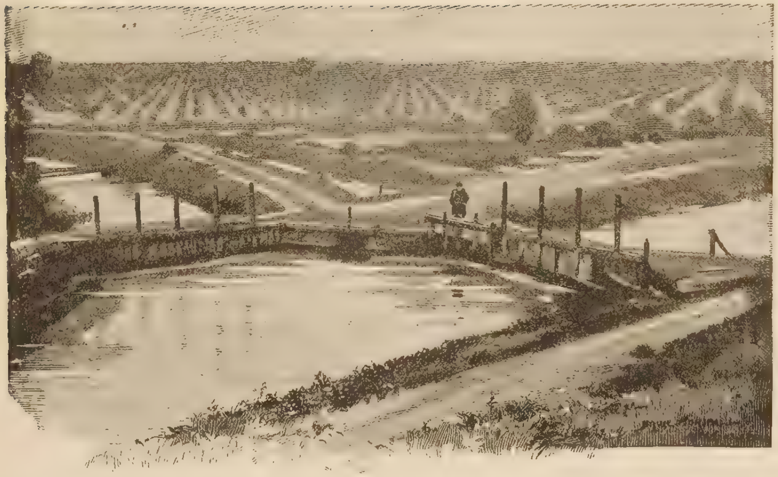
The only considerable lowland area in the section is in the extreme southwest corner.

Climate. — The climate is dry, with hot summers, but the winters, except in the extreme south, are cold.

Most of the streams are fed by the snows among the high mountains.

Drainage. — The Rocky Mountains for most of their length form the divide between the Atlantic and Pacific slopes.

The eastern slope is drained by the Missouri, Yellowstone, Platte, Arkansas, and Rio



Irrigation Canal, New Mexico.

Grande rivers. Of these the Missouri and Yellowstone are navigable.

The western slope of the section contains the Colorado river system and the Snake and Clark rivers of the Columbia system. The greater portions of the Colorado and its tributaries, as well as Snake River, are rushing torrents of little or no value to commerce.

Much of the central portion of the section lies in the Great Basin, in which the few streams disappear in the hot sands or flow into salt lakes or swamps.

Vegetation. — There are forests on most of the mountain slopes and higher plateaus, but the valleys and lower plateaus are so dry that they bear but a scanty growth of sage brush, and in some places are true deserts. In many places farming is possible only by the aid of irrigation or artificial watering.

People. — This section is very thinly peopled. It contains fewer people than the city of Chicago.

There are a large number of Indians who live on reservations or tracts set apart for them. In the south are the remains of many cliff dwellings, built long ago by the Indians, as well as the pueblos or great houses of adobe or sun-dried brick built by the Pueblo Indians. In the south many of the people are of Spanish descent.

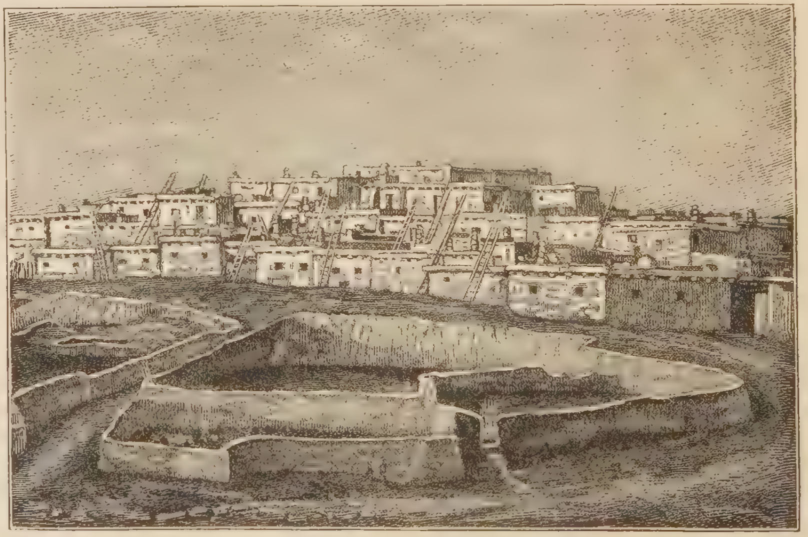
Industries. — Mining in the mountains and herding on the plains and plateaus are the characteristic industries. The mines of gold, silver, lead, and copper are among the richest in the world. Coal, petroleum, and many other valuable minerals are also obtained.

The herding of cattle for beef, and of sheep for wool, is widely pursued.

Good crops of grain, hay, potatoes, and fruits are obtained in many places where water for irrigation can be procured from streams.

There are comparatively few railroads in the section, but most of these are very important ones — being parts of the great "through lines" which connect the Atlantic and Pacific seaports.

Montana is mountainous in the west, but lies in the Great Plains in the east. It pro-



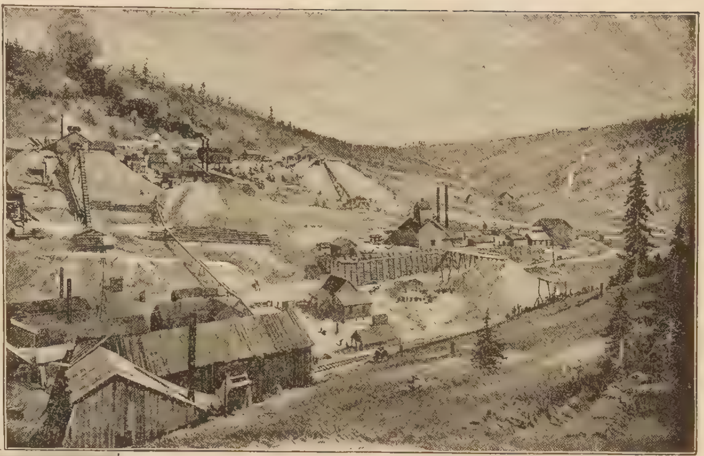
A Pueblo, New Mexico.

duces more copper than any other state, much wool, and many beef cattle.

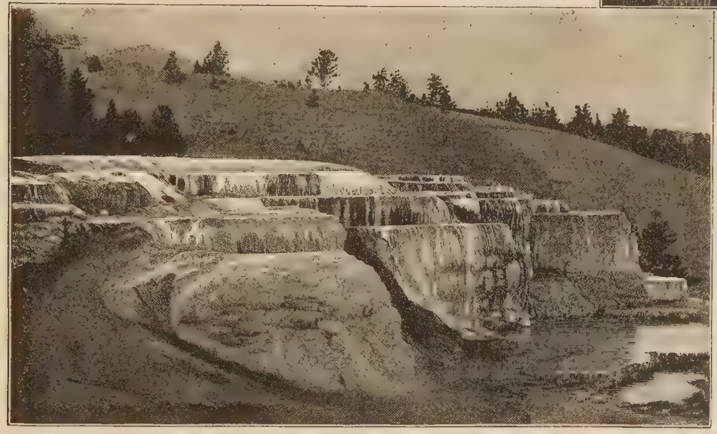
Butte is noted for its productive copper and silver mines. *Great Falls* is a manufacturing center.

Wyoming is more mountainous than Montana, but contains few minerals. Some coal and petroleum are obtained. The chief occupation is the herding of cattle, sheep, and horses.

Cheyenne is the capital and largest city.



MINING DISTRICT, LEADVILLE, COLORADO.



TERRACES FORMED BY DEPOSITS FROM HOT SPRINGS.

The Yellowstone National Park, which lies mostly in Wyoming, is a wonderland of high mountains, deep canyons, hot springs, and geysers. Congress has prohibited settlement or the killing of game in this region.

Colorado is the highest and most mountainous state in the Union. It produces more silver, gold, and lead than any other state, and considerable coal. Farming is important in many of the valleys.

Denver is the largest city in the section. *Pueblo* is a manufacturing center. *Colorado Springs* is a health resort. *Leadville* is the center of silver and lead mining.

New Mexico is less mountainous than the states to the north. Sheep raising and cattle raising are the leading occupations.

Albuquerque is a trade center. *Santa Fé* is the capital.

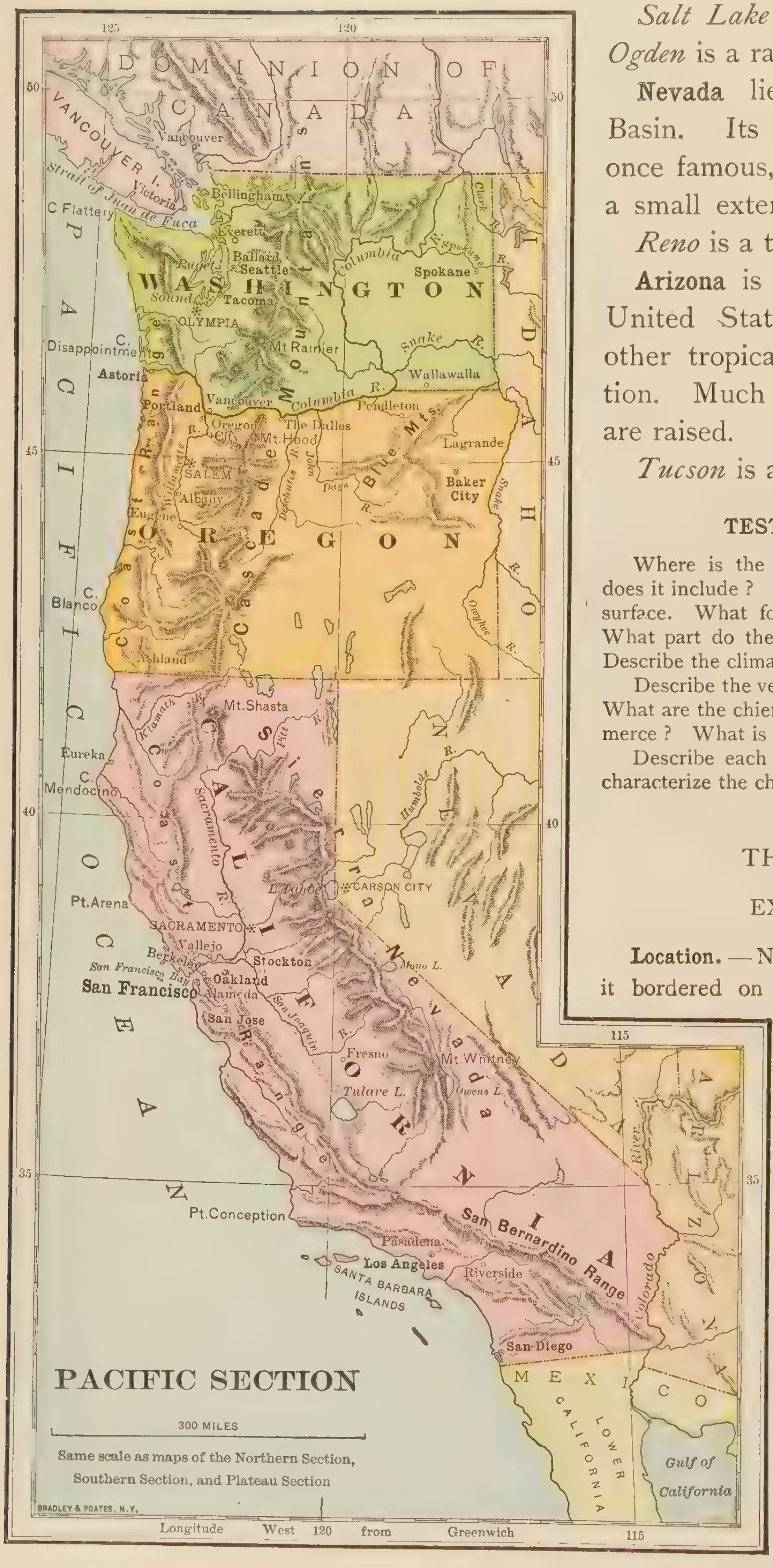
Idaho lies west of the Rocky Mountains. The northern part has a moister climate than the rest of the section; the valleys in that part of the state produce good crops of wheat, and the forests yield fine lumber. There are rich gold, silver, and lead mines.

Boise, the capital, is in a fine grazing region.

Utah is traversed by the Wasatch Mountains. The climate is very dry, but the valleys of many snow-fed mountain streams, especially those which border Great Salt, Utah, and Sevier lakes, contain farms and produce fine fruits.

Silver, gold, copper, and lead are mined, and salt is obtained from Great Salt Lake.

SHEARING SHEEP, WYOMING.


PACIFIC SECTION
300 MILES
Same scale as maps of the Northern Section, Southern Section, and Plateau Section
BRADLEY & POATES, N.Y.
Longitude West 120 from Greenwich
125
120
115
50
45
40
35
DOMINION OF CANADA
VANCOUVER I.
Vancouver
Victoria
Strait of Juan de Fuca
C Flattery
Bellingham
Everett
Puget Sound
Ballard
Seattle
Tacoma
OLYMPIA
Mt Rainier
Spokane
WASHINGTON
Columbia R.
Snake R.
Spokane R.
Clark R.
Wallawalla
C. Disappointment
Astoria
Portland
Vancouver
Pendleton
Oregon City
The Dalles
Mt. Hood
SALEM
Albany
Eugene
Lagrande
Baker City
Blue Mts.
Willamette R.
John Day R.
Deschutes R.
Cascade Mts.
OREGON
C. Blanco
Ashland
Owyhee R.
Snake R.
IDAHO
PACIFIC OCEAN
Mt. Shasta
Klamath R.
Pit R.
Eureka
C. Mendocino
Humboldt R.
Sacramento R.
Sierra Nevada
Coast Range
CALIFORNIA
NEVADA
L. Tahoe
CARSON CITY
Pt. Arena
SACRAMENTO
Vallejo
Berkeley
San Francisco Bay
San Francisco
Oakland
Alameda
Stockton
Mono L.
San Jose
San Joaquin R.
Fresno
Mt. Whitney
Tulare L.
Owens L.
Pt. Conception
Pasadena
Los Angeles
Riverside
San Bernardino Range
SANTA BARBARA ISLANDS
San Diego
Colorado River
ARIZONA
MEXICO
LOWER CALIFORNIA
Gulf of California

Salt Lake City is the largest city of Utah. *Ogden* is a railroad center.

Nevada lies almost entirely in the Great Basin. Its mines of silver and gold were once famous, but now they are worked only to a small extent.

Reno is a trade center.

Arizona is the hottest and driest part of the United States. Raisins, figs, almonds, and other tropical plants are cultivated by irrigation. Much copper is mined and many cattle are raised.

Tucson is a trade center.

TEST EXERCISES FOR REVIEW

Where is the Plateau Section? What states and territories does it include? Why are they grouped together? Describe the surface. What four river systems drain most of the section? What part do they not drain? What lakes are in the section? Describe the climate.

Describe the vegetation. Tell what you can of the inhabitants. What are the chief industries? What is said of farming and commerce? What is the Yellowstone National Park?

Describe each division of the Plateau Section and locate and characterize the chief cities in each.

THE PACIFIC SECTION

EXERCISES ON THE MAP

Location. — Name the states of this section. By what is it bordered on the west? by what section on the east? What country is north? south? In what part of our country is the Pacific Section situated?

Coast. — Is the coast regular or irregular? What strait and sound are on the northwest? What bay is in western California? Name four capes on this coast. Name a group of islands off the southern part of this coast.

Surface. — What mountains traverse these states near the coast? What mountains are farther inland? Find two peaks in the Sierra Nevada. Where is each? Find two in the Cascade Mountains. Where is each? What mountains are in southern California? Where are the Blue Mountains?

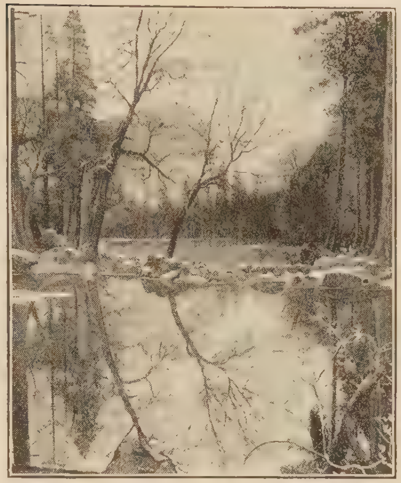
Drainage. — What great river drains the northern part of this section? Name its chief branches. Between what states does the Columbia flow? What river drains northern California to the Pacific?

What two rivers drain central California? Describe each of them. What river forms part of the eastern boundary of California? Where are there large lakes in this section? Name three of the lakes.

Divisions. — Where is the state of Washington? Name and locate the capital; three other cities.

Where is Oregon? How does it compare with Washington in size? Name and locate the capital. Where is Portland?

Where is California? Compare it in size with the other states in this section. Name and locate the capital. Where is San Francisco? Los Angeles? Oakland?



A Lake in the Sierra Nevada.

DESCRIPTION

Location and Coast. — This section embraces the three states on the Pacific coast.

The coast is very bold, with few good harbors. The most noted harbors are in San Francisco Bay and in Puget Sound.

Surface. — Near the Pacific the Coast Ranges rise to the height of half a mile and fringe nearly the entire coast. In the south, where they are called the San Bernardino Range, they are much higher and are often snow-clad.

Farther inland the rugged ranges of the Sierra Nevada and Cascade Mountains border the Rocky Mountain highland. These ranges contain many peaks nearly three miles in height. Among the mountains are beautiful valleys and clear and deep mountain lakes. Some of the peaks in these mountains were once great volcanoes.

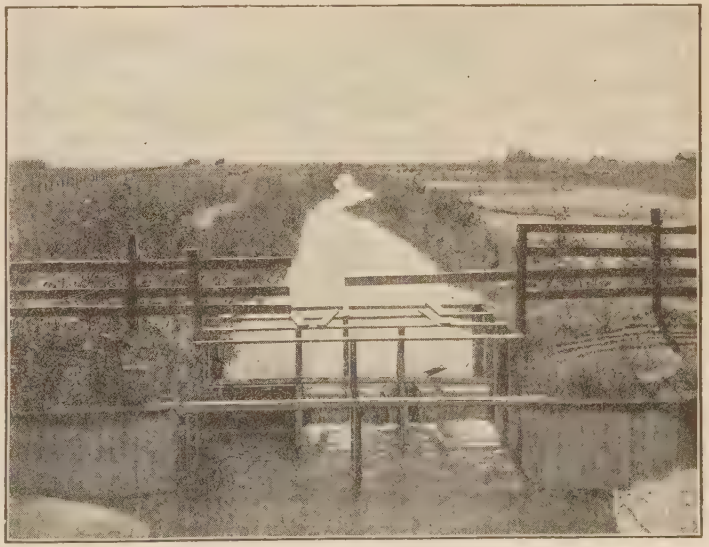
Between the Coast Ranges and the Sierra Nevada and Cascades, are broad, low valleys which are noted for their fertility. In Washington, the valley is occupied by Puget Sound; in Oregon, by Willamette River; and in California, by Sacramento and San Joaquin rivers.

Drainage. — The largest river is the Columbia, which drains most of Washington and Oregon. Ocean steamers ascend it and the Willamette to Portland.

The Sacramento and San Joaquin rivers drain the great Valley of California and flow into San Francisco Bay. Much of the water of the San Joaquin is used to irrigate the soil.

Climate. — The west winds from the Pacific bring abundant moisture to most of the section, and they also make the winters mild and the summers pleasant.

Most of the rain falls in the winter months, and the summers are quite dry. In many places on the lowlands flowers bloom out of



An Irrigation Canal, California.

doors all the year round, and frost is rare; yet on the high mountains not far away snow and ice may generally be found.

Harvesting Wheat, California.

Vegetation. — The forests on the moist western slopes of the mountains are among the densest in our country. In the north the forests consist largely of Douglas fir, and furnish much timber.

Vineyard, California.

In California there are groves of "big trees" three hundred feet high. There are fine forests of redwood in northwestern California.

People. — This section is somewhat more thickly peopled than the Plateau Section. Most of the people are settlers from the eastern part of the country or their descendants; but there are some of Spanish descent, some Indians, and a number of Chinese.

Industries. — Farming is the chief industry. The fertile soil of the valleys and the equable climate make the section one of the finest farming regions in the world. Wheat, barley, fruit, vegetables, and hops are the chief crops.

The fruits are specially noted: oranges, lemons, olives, figs, and dates in the south, and grapes, plums, peaches, nectarines, and apples farther north. Many sheep are raised for their wool.

Lumbering and salmon fishing are extensive industries in the north.

The gold mines of the Sierra Nevada are still among the richest in the world. Coal is also mined in the northern part of the section, quicksilver in the central part, and petroleum is obtained in the south.

The commerce of the section is quite extensive — both by sea and by a number of railroads which cross the continent from San Francisco Bay and Puget Sound.

Gold Mine, Oregon.

Washington is traversed by the Coast and the Cascade ranges. Between these is the famous Sound Valley, in which are fine forests, good wheat, fruit, and hop lands, and valuable coal beds. The eastern part of the state is dry, but in the river valleys much wheat is raised.

Seattle, the largest city, is noted for its coal and lumber business. *Tacoma* and *Spokane* also are important commercial cities.

BRANCH OF OLIVES, CALIFORNIA.

Oregon resembles Washington in surface. West of the Cascades lumbering and farming are the chief industries, and east of the Cascades sheep herding is important.

LUMBERING, WASHINGTON.

Wheat, fruit, and hops are the chief crops. The salmon fisheries of this state are especially noted. Gold is mined in the southwest and northeast.

Portland is the largest city and chief trade center of the Northwest.

California. — The Sierra Nevada in the east contains rich deposits of gold and affords some of the finest scenery in the world. The Coast Ranges are covered with dense redwood forests in the north, and contain rich quicksilver mines in the central part.

The central valley produces wheat, hay, barley, and fruits, and farther south the chief products are honey, grapes, and oranges and other tropical fruits.

San Francisco, one of the great cities of the United States, has a large foreign commerce. *Los Angeles* is the commercial center of southern California. *Oakland* is an important railway terminus. *Sacramento* is the capital.

TEST EXERCISES FOR REVIEW

What states does this section embrace? Why are they grouped together? Describe the coast. Describe the surface; the drainage; the climate.

What can you say of the vegetation of the section? of the people? What is the chief industry? What are the principal farm products? Mention some other noted industries of the section.

Describe each state of the section, and locate and characterize the chief cities in each.

SALMON FISHING, OREGON.

A City Street, Porto Rico.

Indian Women, Alaska.

Native Women Weaving, Philippines.

Grass House, Hawaiian Islands.

OUTLYING POSSESSIONS OF THE UNITED STATES

EXERCISES ON THE MAP (Page 26)

In what part of North America is Alaska? By what waters is it nearly surrounded? By what strait is it separated from Asia? What country is east? Is the coast regular or irregular? What cape is at the northern point? What islands are off the western coast, in Bering Sea? What island is south? What mountain peak is in Alaska? What peaks are near the southeast border? What river flows through Alaska? In what zones is Alaska situated? Find Sitka.

DESCRIPTION

1. **Alaska.** — In 1867 the United States purchased the land called *Alaska* from Russia, a country which still owns the land in Asia just across Bering Strait.

Along the southern coast stretches a great wall of mountains containing the highest peaks in North America. These mountains are covered with forests at the base, but capped with perpetual snow and ice. Great tongues of this ice cap creep slowly down the mountain sides, often filling whole valleys, and forming *Glaciers*. Some of these glaciers reach down to the sea, where pieces of the ice break off and float away as *Icebergs*.

Beyond the mountains little is known about the land except along the course of the Yukon River, which is navigable in summer.

Along the southern coast, which is fringed with many beautiful islands, the climate is mild but very rainy or snowy. In the interior it is very cold during the long winter.

Resources. — This country has fine forests of pine, cedar, and firs, and many salmon and other fish ascend the rivers. Gold is found and other minerals are known to occur.

Many fur seals are killed on the Pribilof islands. Many fur-bearing animals are caught on the mainland by the Indians and Eskimos.

Sitka is the capital of the territory.

2. **Porto Rico** is an important island in the West Indies. It lies in the Atlantic Ocean, one thousand miles southeast of Florida. After its discovery by Columbus, it was settled by Spaniards, and was governed by Spain until 1899, when it came under the control of the United States.

3. **The Territory of Hawaii** comprises a group of islands in the Pacific Ocean. They lie near the Tropic of Cancer, about twenty-five hundred miles southwest of San Francisco. For a long time they were governed by a native king or queen, but in 1898 they came under the control of the United States.

4. **The Philippine Islands** are a large group of islands lying in the Pacific Ocean, southeast of Asia. They were discovered by Magellan, and governed for a long time by Spain. But since 1899 they have been under the control of the United States.

5. **Wake** and **Guam** are small islands between Hawaii and the Philippines. **Tutuila** is one of the several small islands in the south Pacific Ocean which have lately been acquired by the United States.

TEST EXERCISES FOR REVIEW

Where is Alaska? Describe its surface and drainage; its climate; its resources and industries. Where is Porto Rico? Hawaii? the Philippines? Wake, Guam, and Tutuila?

DOMINION OF CANADA AND DANISH AMERICA

EXERCISES ON THE MAP (Page 26)

Canada. — In what part of North America is Canada? What waters and countries border it? Compare its size with that of the United States.

What island is on the east coast? What island and island group are on the west coast? What large bay and gulf extend far inland? What peninsula is in the southeast?

What mountains traverse Canada? What great river system drains to the Arctic Ocean? What lakes are in this basin? What great river system drains to Hudson Bay? What lake is in this basin? What river system drains to the Gulf of St. Lawrence? What lakes are in this basin? What river drains the extreme northwest to Bering Sea?

Name and locate the capital of Canada; two cities east of it. Name a city in Nova Scotia; a city on Vancouver Island.

Newfoundland. — Where is Newfoundland? What bodies of water surround it? What cape is at the southeastern extremity? Find the capital of Newfoundland. Where is Labrador?

Greenland and Iceland. — Where is Greenland? What waters surround it? What cape is at its southern extremity? In what zones is it? Where is Iceland? In what part of what zone is it? in what direction from Greenland?

ROCKY MOUNTAINS, CANADA.

DESCRIPTION

Location and Surface. — Canada includes all the mainland north of the United States except Alaska and Labrador.

The surface is generally a smooth lowland except in the west, where it is traversed by the Rocky and Cascade mountains. Between these ranges lies a rugged plateau.

Drainage. — Canada contains many lakes, some of which are among the largest in the world.

The principal rivers are the St. Lawrence, the Mackenzie, and the Nelson-Saskatchewan.

Of these the St. Lawrence is the only important highway of trade. The others are frozen much of the year, and flow through lands which contain few people.

Sheep in Western Canada.

The Climate in the north is very cold, and snow falls every month in the year. Farther south the winters are long, cold, and snowy, while the summers are short and hot. Along the Pacific coast the westerly winds make the climate mild, with rainy and foggy winters. The mountains are always covered with snow and contain beautiful glaciers. Along the coast of Nova Scotia a warm and a cold current meet and cause dense fogs.

Vegetation. — In the north the ground is frozen to a great depth. Its surface thaws but a few inches in summer, when the country is converted into a great morass, or tundra, on which mosses, lichens, and dwarf shrubs are the only plants.

Between Lake Winnipeg and the Rocky Mountains the land consists of open prairies, with some woodlands. Here are extensive wheat farms and grazing lands.

A Smelter in Western Canada.

Most of the rest of Canada is covered with forests of pine, cedar, and fir, except in the southeast, where the best lands have been cleared and made into farms, on which grain and fruit are grown.

People. — Canada is much more thinly settled than the United States. Most of the people live in the southeast.

In the north the land is inhabited by widely scattered tribes of Eskimos. These people live near the coast in winter, but move inland in summer in search of game.

The forest region farther south is inhabited by Indian tribes, who hunt and trap fur-bearing animals, and exchange the furs with white traders for clothing, guns, tobacco, and blankets.

In the south and southeast most of the people are whites, and in the St. Lawrence valley many of them are of French descent.

Industries. — Lumbering forms the most important occupation in Canada.

Farming is carried on only in the south. About Lake Winnipeg wheat is the chief product, and in the southeast barley, oats, hay, potatoes, and apples are grown.

The fisheries of Canada are very valuable. Cod and mackerel are caught off the southeast coast, and salmon in the rivers of the west coast.

Coal is found in Nova Scotia, and coal and gold are abundant in the west.

An active trade is carried on by means of the St. Lawrence during the summer, but the river is closed by ice in winter. A railroad traverses Canada from Montreal to the Pacific. The rivers and lakes form the only routes of travel in large parts of the country.

Government. — Canada belongs to Great Britain, but the people make their own laws, under a governor-general appointed by the king.

Cities. — *Ottawa* is the capital. It contains beautiful government buildings, and is a market for lumber. *Montreal* is the largest city; in summer ocean steamers sail up the St. Lawrence River as far as this. *Quebec* is the oldest city. *Halifax* is a seaport on the Atlantic coast. *Vancouver* is the chief seaport on the Pacific coast.

Government Buildings, Ottawa.

Newfoundland. — The island of Newfoundland, together with Labrador, forms a colony belonging to Great Britain. The surface is generally barren, but there are some fine forests. The climate is cold, and dense fogs often hang over these lands. The coasts are famous for their cod and mackerel fisheries. *St. Johns* is the capital.

Quebec.

Harbor, Montreal.

Greenland. — Nearly the whole of Greenland is always covered with snow and ice thousands of feet deep. Glaciers extend down into the sea, and from the ends of them many icebergs break off and float away. Along the west coast is a narrow strip not covered with snow, and here a few Eskimos live, and gain a living by hunting and fishing.

Iceland. — Mild ocean currents and winds make the climate of Iceland warmer than that of Greenland. The island contains noted volcanoes and geysers. It was settled over a thousand years ago by the Northmen from Europe, whose descendants still live there. Both Iceland and Greenland belong to Denmark, a small nation in the northwest of Europe.

Maguey Plant.

MEXICO, CENTRAL AMERICA, AND THE WEST INDIES

EXERCISES ON THE MAP (Page 26)

Mexico. — What country lies south of the United States? What waters border Mexico? What peninsula is in the west? What gulf is east of the peninsula? What peninsula is in the southeast of Mexico? In what zones is Mexico?

What mountains traverse the country? Of what mountains are the ranges of Mexico a continuation? What river is on the northern boundary? What river is in the northwest?

Find the capital. What city is on the Gulf coast? on the Pacific coast?

Central America. — Where is Central America? What sea is east of it? What ocean is west? What part is mountainous? What lake is in Central America?

West Indies. — What group of islands is southeast of North America? Name the four largest. What group east of Florida forms part of the West Indies? What sea lies between the West Indies and South America? What gulf is west of Cuba? What strait separates Cuba and Florida? In what zone are most of the islands?

DESCRIPTION

Mexico lies south of the United States, between the Gulf of Mexico and the Pacific Ocean. The country is wide in the north, but tapers rapidly toward the south, and at the narrowest place is less than one hundred and fifty miles wide.

Surface and Drainage. — The surface of Mexico is mostly a high plateau or tableland, which rises abruptly from narrow coast plains.

The plateau is about a mile high and is traversed by mountain ridges which contain many high peaks. A line of snow-capped volcanoes borders the plateau on the south.

Sugar Cane Field.

Coffee Drying.

The streams are generally short mountain torrents, none of which are useful for navigation. Many of them in the north are either lost in the sands of the plateau or flow into salt lakes.

The climate is hot, moist, and unhealthful along the coast, but drier, cooler, and quite healthful on the plateau. Here in places it is constant spring. The high mountain tops are always covered with snow.

Most of the rain falls in summer; but on the plateau in the north there is little rain at any season.

Plants and Animals. — In the lowlands there is a dense tropical vegetation, — palms, bananas, bamboos, mahogany, and ebony trees, coffee shrubs and vanilla vines, and many beautiful flowering plants.

Peddler.

Mexican Native Houses.

On the highlands are plants like those of our own country, — oaks, walnuts, cedars, and pines, wheat and corn. But the characteristic plant is the maguey or "century plant." Its sap is made into beer, and its roots are used for food. Another kind of maguey, in Yucatan, furnishes the strong fiber called *Sisal Hemp* which is made into ropes and hammocks.

The animal life, like the plant life, along the coast is tropical. Alligators live in the streams, jaguars and large troops of monkeys inhabit the forests, and on every side may be seen birds of the most beautiful plumage.

People. — When Mexico was first visited by Spaniards, they found an Indian people who were more nearly civilized than the Indians farther north. The most nearly civilized of the Indian tribes of Mexico were the Aztecs, who lived in pueblos of stone or adobe like those in the southwest of our country. Many of the Spanish settlers married Indians, and their descendants are called *Mexicans*. The people of Mexico consist of some Spaniards, and many Mexicans and Indians.

Most of the people live on the cool and pleasant highlands.

The lands of Mexico are owned by Spaniards and a few Mexicans. The rest of the people are poor and ignorant. They are the laborers on the farms and in the mines.

Mexico is now an independent republic like the United States.

Street in City of Mexico.

Industries. — The chief industries on the highlands are the mining of silver and the herding of cattle and sheep; though where the land can be irrigated, corn, wheat, beans, and fruits are cultivated. The mines are rudely worked, yet they produce nearly as much silver as those of the United States.

Indian Church, Central America.

Loading Bananas, Central America.

On the lowlands cotton, sugar, coffee, tobacco, sisal hemp, and tropical fruits are cultivated, and forest products are collected.

The Mexicans are skillful in making blankets, leather, and silver filigree work.

Mexico, the capital, is a large and beautiful city on the plateau. *Vera Cruz* and *Acapulco* are the chief seaports.

Central America is larger than California. The mountains near the Pacific contain many volcanoes, and earthquakes often occur. The eastern coast is low and swampy.

The climate is hot and moist, and the year is divided into a rainy and a dry season.

The plants and animals are like those of the lowlands of Mexico, but the forests are denser and contain dyewoods and rubber trees.

The people are like these of Mexico, except that there are more Indians and fewer Spaniards.

The chief products are mahogany lumber, dyewoods, rubber, coffee, and bananas.

Central America embraces six small Spanish-speaking republics and a colony of Great Britain.

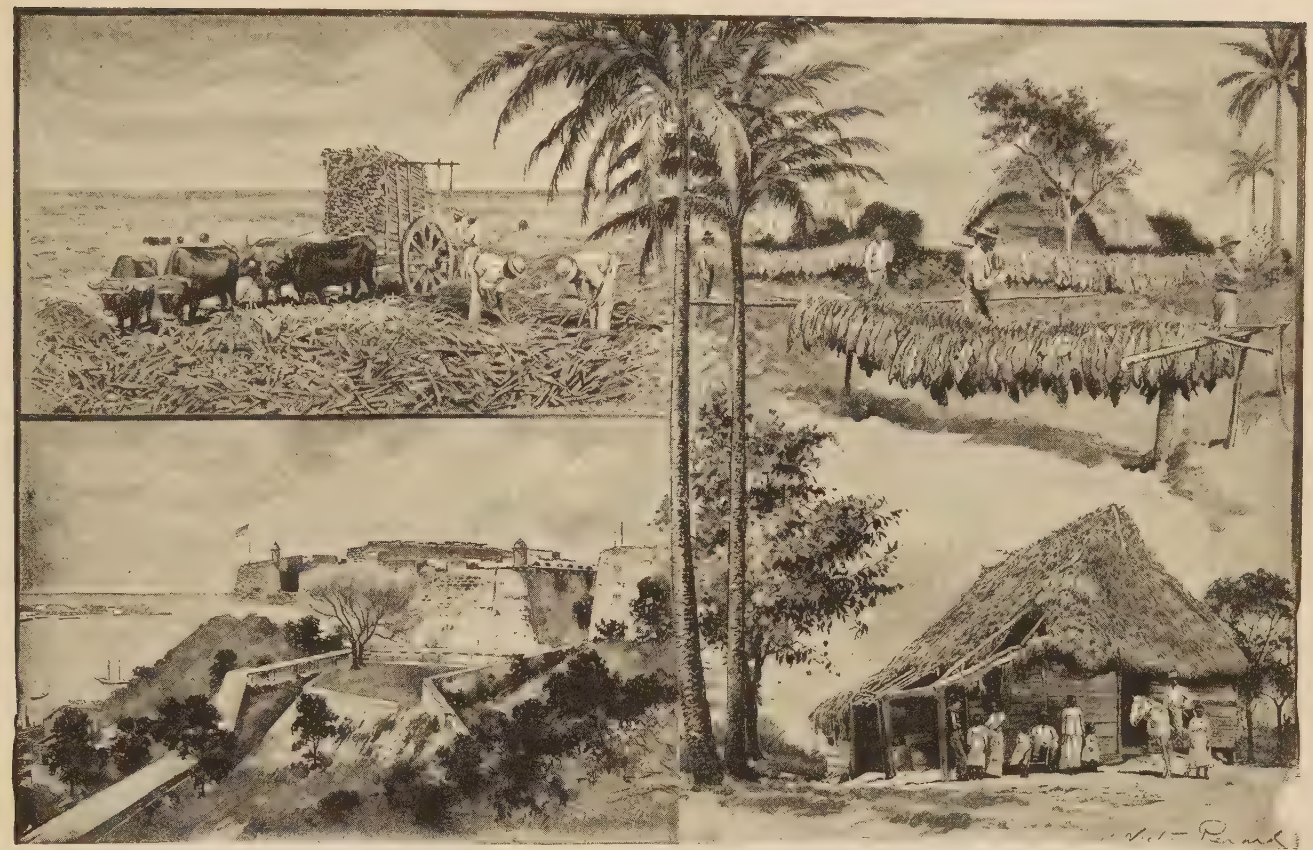
Across the Isthmus of Panama a great ship canal is being constructed, between *Panama* on the Pacific and *Colon* on the Caribbean Sea. The isthmus is now crossed by a railroad.

The West Indies extend from Florida to South America. The chain comprises the four large islands of Cuba, Haiti, Porto Rico, and Jamaica, and many small islands.

Most of the islands are mountainous, and some contain volcanoes. Many of them are bordered by reefs which are built by coral polyps. The Bahamas are low, coral islands.

Climate and Vegetation. — The climate is like that of Central America, but more tempered by ocean winds. Great storms, called *Hurricanes*, sometimes occur, killing people and destroying buildings and ships.

The islands have a dense tropical vegeta-



GATHERING SUGAR CANE, CUBA.

DRYING TOBACCO, CUBA.

CABANA FORTRESS, HAVANA.

FARMER'S HOUSE, CUBA.

tion, and some of the larger ones contain great forests. There are no large animals and few poisonous snakes, but many beautiful birds and butterflies.

People. — The first land in America reached by Columbus was one of the Bahamas. When the Spaniards settled these islands they brought many negro slaves to their plantations, and now there are more negroes than whites. There are also many people of mixed blood.

Most of the islands belong to European countries; but Cuba is a republic under the protection of the United States, Porto Rico belongs to the United States, and Haiti contains two independent negro republics.

Productions. — Sugar cane and tobacco are the chief products, particularly of Cuba, but coffee, bananas, and other tropical fruits are also exported. Sponge fishing forms an important industry among these islands.

Havana, the capital of Cuba, is the largest city in the West Indies. It is a great sugar and tobacco market.

TEST EXERCISES FOR REVIEW

Where is Canada and what does it include? Describe the surface and drainage; the climate. What can you say of the vegetation? of the people? What are the principal industries and products? Describe the government and chief cities.

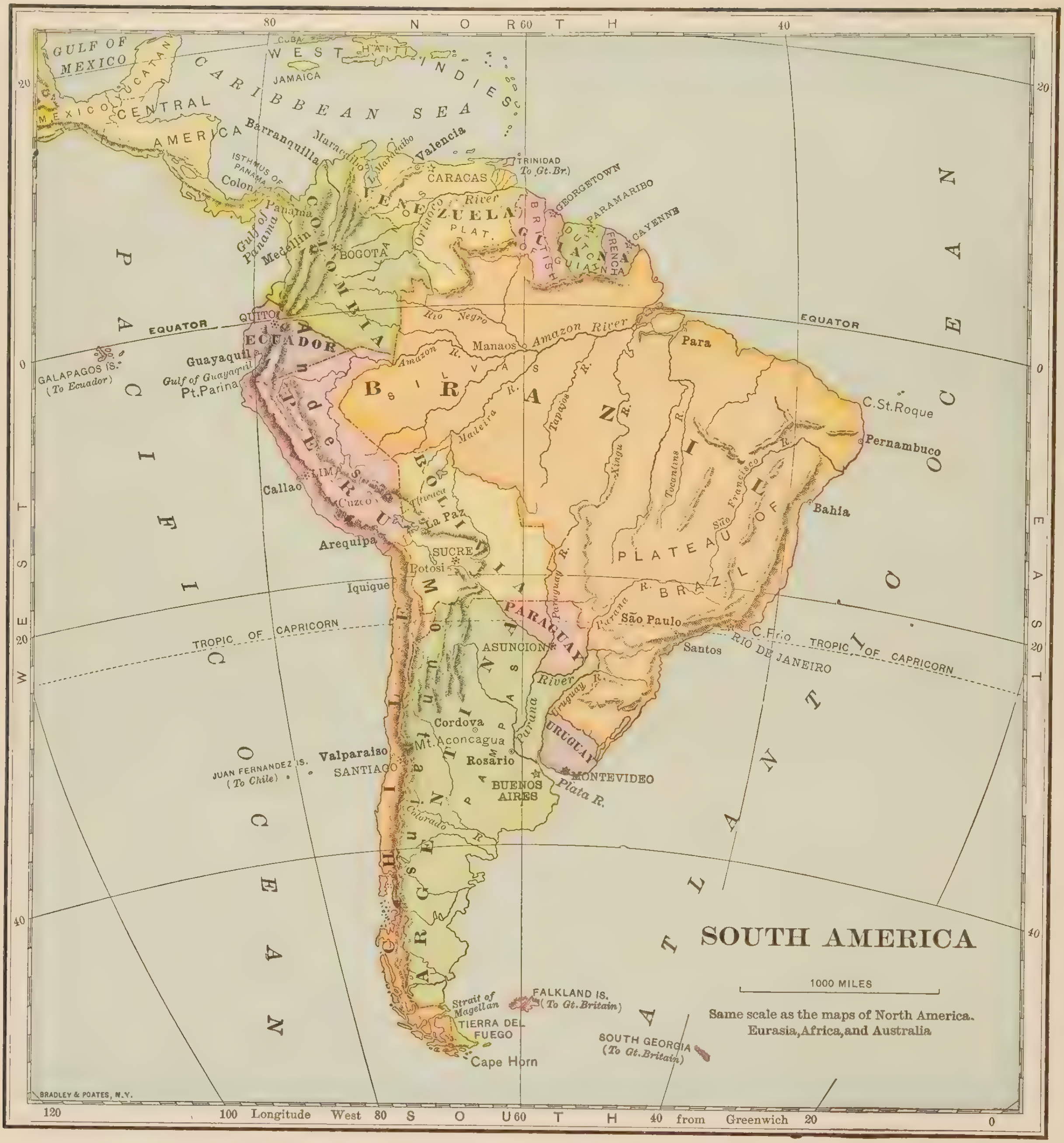
Where and what is Newfoundland?

Where and what is Danish America? Describe Greenland. Describe Iceland.

Where is Mexico? Describe its surface and drainage; its climate. Tell what you can of its plants and animals; of its people. What are the principal industries and products? What is the form of government? Name the capital.

Where is Central America? Of what is it composed? Describe its surface and climate. What are the chief products?

What and where are the West Indies? Name the four largest islands. Describe their surface and coast line; their climate and vegetation. What can you say of the people? What are the chief products? What is the chief city?


NORTH
SOUTH
WEST
EAST
GULF OF MEXICO
MEXICO
YUCATAN
CENTRAL AMERICA
CUBA
HAITI
JAMAICA
WEST INDIES
CARIBBEAN SEA
Barranquilla
Maracaibo
Valencia
CARACAS
TRINIDAD (To Gt.Br.)
ISTHMUS OF PANAMA
Colon
Panama
Gulf of Panama
Medellin
BOGOTA
COLOMBIA
VENEZUELA
Orinoco River
Llanos
PLAT.
BRITISH GUIANA
GEORGETOWN
DUTCH GUIANA
PARAMARIBO
FRENCH GUIANA
CAYENNE
QUITO
EQUATOR
ECUADOR
Guayaquil
Gulf of Guayaquil
Pt.Parina
GALAPAGOS IS. (To Ecuador)
Rio Negro
Manaos
Amazon River
Amazon R.
Para
BRAZIL
SELVAS
Madeira R.
Tapajos R.
Xingu R.
Tocantins R.
São Francisco R.
C.St.Roque
Pernambuco
Bahia
PLATEAU OF BRAZIL
PERU
LIMA
Callao
Cuzco
Titicaca
La Paz
BOLIVIA
Arequipa
SUCRE
Potosi
Iquique
PARAGUAY
Paraguay R.
Parana R.
São Paulo
Santos
C.Frio
RIO DE JANEIRO
TROPIC OF CAPRICORN
ASUNCION
River
Uruguay R.
URUGUAY
MONTEVIDEO
Plata R.
Cordova
Mt.Aconcagua
Rosario
BUENOS AIRES
PAMPAS
Valparaiso
SANTIAGO
JUAN FERNANDEZ IS. (To Chile)
Colorado R.
CHILE
ARGENTINA
ANDES
Strait of Magellan
TIERRA DEL FUEGO
Cape Horn
FALKLAND IS. (To Gt.Britain)
SOUTH GEORGIA (To Gt.Britain)
PACIFIC OCEAN
ATLANTIC OCEAN
SOUTH AMERICA
1000 MILES
Same scale as the maps of North America, Eurasia, Africa, and Australia
BRADLEY & POATES, N.Y.
120
100 Longitude West 80
60
40 from Greenwich 20
0
20
40

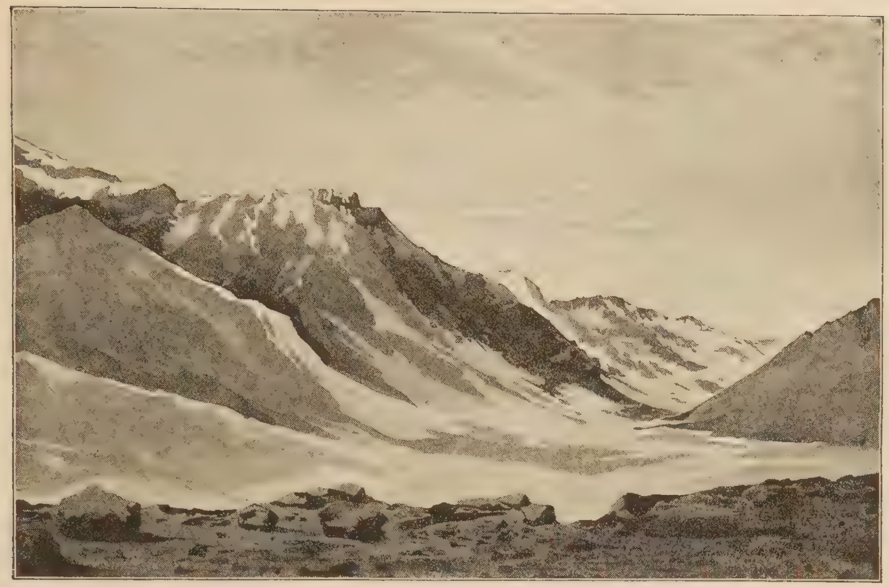
SOUTH AMERICA

EXERCISES ON THE MAP

Location. — How are South America and North America connected? What waters border South America?

Coast. — What is its general shape? Which side is the longest? Which has the greater number of gulfs and bays, North America or South America? Where is the Gulf of Guayaquil? Lake Maracaibo? What two wide river mouths are on the east coast? Where is the Strait of Magellan? What island does it separate from the mainland? What cape is at the extreme southern end of South America? Where are most of the islands?

Relief. — What mountain system lies near the Pacific coast? What is its trend? Name and locate one of its peaks. Where is it broadest? Compare the length and width of the Andes and Rocky Mountain systems by using the scale of miles. Where in South America are there mountains other than the Andes?



Andes Mountains.

Drainage. — On which slope from the Andes are most of the rivers? What river is in the northern part? Describe the direction of its flow. What river flows east across the greater part of South America? Name its chief branches. What estuary is on the southeast coast? What rivers unite to form the Plata? Name a branch of the Parana. What river rises near the source of the Parana?

Climate. — What circles cross South America? In what zone is the northern part of South America? In what zone is the central part? the southern part?

Countries. — What is the largest country of South America? In what three great river basins does it mostly lie? Name and locate the capital; four other cities.

What two countries occupy the southeast coast? Compare them as to size. What rivers separate them? Name and locate the capital of each; two other cities of Argentina.

Locate and describe two inland countries. Name and locate the capital of each; another city in Bolivia.

Locate and describe four countries on the Pacific. Name and locate the capital of each; a seaport in each.

What two countries are on the north coast east of Colombia? Name and locate the capital and a seaport of Venezuela. How is Guiana divided? Name the capital of each part.

Map Drawing. — Sketch and re-sketch an outline of the mainland of South America like this figure, but larger, until you can reproduce its shape quickly from memory.

DESCRIPTION

Shape and Extent. — South America lies southeast of North America, with which it is connected by the Isthmus of Panama. Like North America, it is triangular in shape, being widest at the north and narrowing gradually to a point at the south.

It is a little smaller than North America.

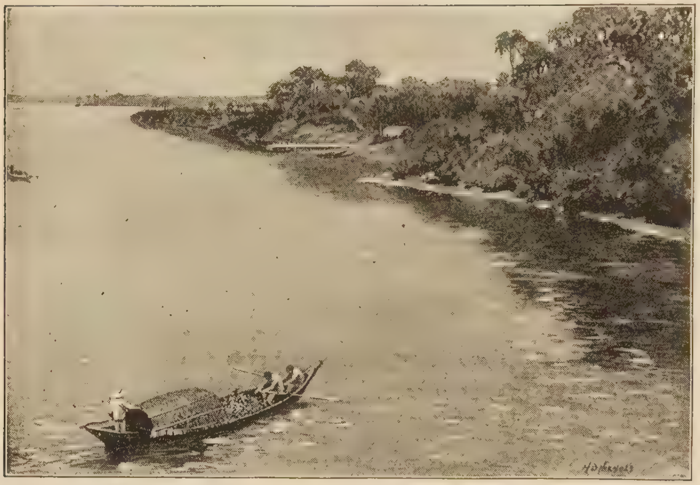
The coast is regular, with few bays, and except in the southwest there are few islands.

Relief. — South America, like North America, has its highest mountain system in the west, a smaller highland in the east, a plateau stretching east and west in the northeast, and a great central plain stretching from north to south through the central part.

The Andes rise like a continuous wall in the west. There are few passes, but many snow-capped peaks between three and four miles high. Many of these are volcanoes. Destructive earthquakes frequently occur in this highland.

The broadest part of the Andes highland is called the *Plateau of Bolivia*, and here the Andes are made up mainly of two ranges, each of which borders the plateau. Farther north the mountains divide into three ranges, with rugged mountain valleys between.

The *Plateau of Brazil* in the east and the *Plateau of Guiana* in the northeast are broader than the Andes, but only half a mile high. Both are traversed by low, rounded or even-topped mountains rarely more than a mile in height.



On the Amazon River.

Between the Andes and the eastern highlands, on the long Atlantic slope, lies the great lowland plain of South America. This is separated into three parts by divides so low that they are unnoticeable.

Climate. — The greater part of South America lies in the Torrid Zone, and is always hot. It is only in the south, which lies in the Temperate Zone, that the year has a warm and a cold season. South of the equator winter occurs in our summer months.

The Andes are so high that even in the Torrid Zone many of the highlands are delightfully cool throughout the year.

In the Torrid Zone, the winds blow from the east. As they ascend the Andes much of their moisture is dropped as rain on the lower slopes and as snow near the colder summits. For this reason the eastern slope of the Andes is well watered, but much of the western slope is a dry, parched desert.

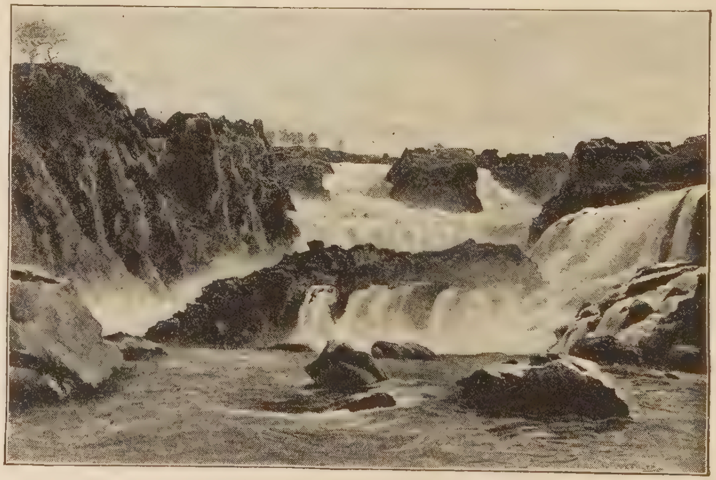
South of the Tropic of Capricorn the winds blow from the west, and thus the west slope is rainy and the east slope is dry.

In many parts of South America the year is divided only into a wet and a dry season.

Rivers. — Most of South America is drained into the Atlantic by the three great river systems of the Orinoco, the Amazon, and the Plata.

In the north the central plain east of the Andes is called the *Llanos*, and is drained by the Orinoco River. During the rainy season this river is flooded, and converts much of this plain into a swamp. The Orinoco has deposited a great delta; but the river is navigable for many hundred miles.

Near the equator is the Amazon, the largest river of South America. Though not so long as the Mississippi, it pours more water into the ocean than any other river in the world. A thousand miles from its mouth it is several miles wide, and large steamers can sail on its waters to the base of the Andes. It has many large branches, especially on the southern side, and drains more than one third of all South America. Its frequent floods convert the lower part of its valley into a vast marsh. Much of its basin is covered with a dense and tangled tropical forest, called the *Silvas*.



Falls in São Francisco River.

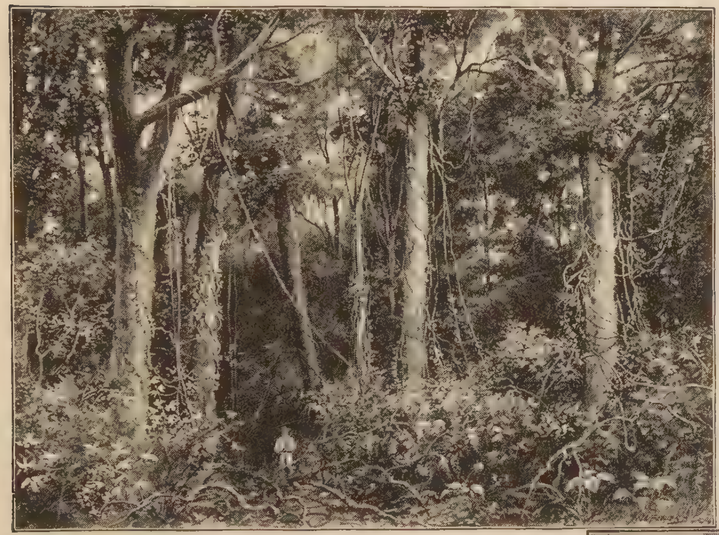
The southern part of South America is

drained chiefly by the Plata system, of which the Parana and the Paraguay are the principal streams. This river basin contains great stretches of grassy plains called the *Pampas*.

The São Francisco drains the eastern part of the Brazilian highlands, and has falls where it breaks through the mountains. It is navigable above the falls, and flows through a fertile valley in which many people live.

The streams of the Pacific slope are mere mountain torrents, many of which dry up before reaching the sea.

Lakes. — There are many small lakes among the Andes and in the south. Lake Titicaca on the plateau of Bolivia is the largest lake in South America and one of the highest in the world. Its outlet flows into a smaller lake which has no outlet, and thus Lake Titicaca contains nearly fresh water, while the lake receiving its waters is salt.



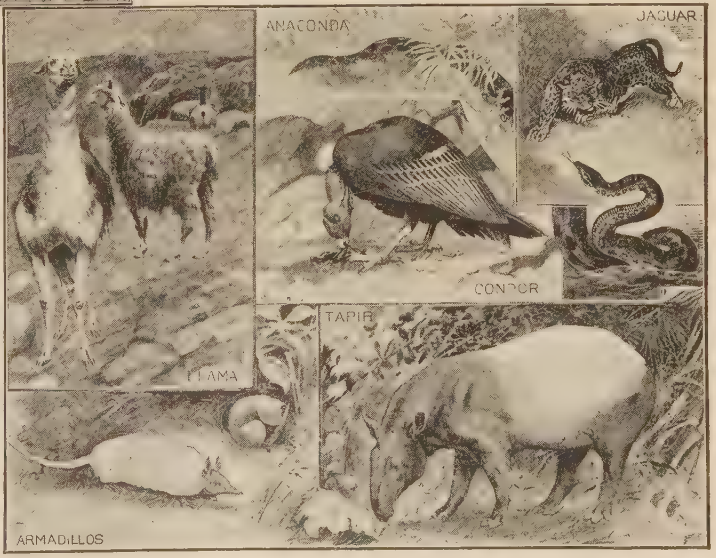
The Silvas.

Plants and Animals. — The llanos during the rainy season are covered with grasses and beautiful flowers, and millions of cattle and horses find pasturage on them. Trees grow only along the streams. In the dry season, however, much of the upland becomes a desert.

The silvas are the densest forests in the world. Mahogany, rosewood, and rubber trees and many palms flourish in this hot, moist region, and the trees are so bound together by vines, climbing plants, and air plants that travel through these forests is almost impossible except by boats on the streams.

Beautiful parrots, humming birds, and other birds abound, as well as insects of beautiful colors and strange habits.

These forests contain many animals, the fiercest of which is the leopardlike jaguar, and the largest is the tapir. Many animals here live in the trees. Great troops of long-tailed monkeys make their way from tree top to tree top; and hanging from the limbs of the trees may be found the slow-moving sloth. The rivers and swamps are full of alligators, and the forests abound in snakes. The boa-constrictor can crush and swallow a good-sized dog or even a calf, and the anaconda is the largest snake in the world.



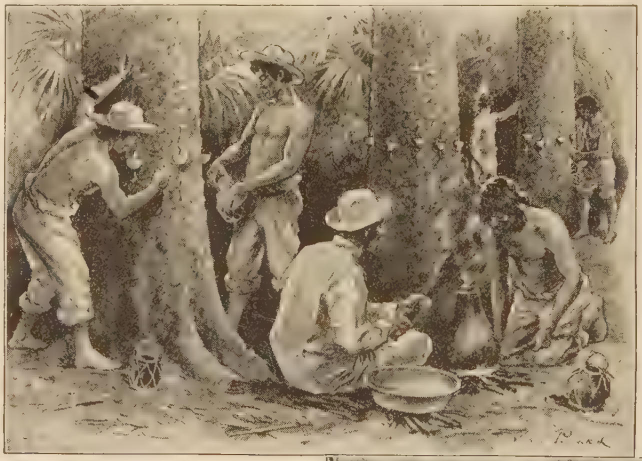
Some Animals of South America.

The pampas are covered with high grass, and furnish the best herding grounds in South America. Here are found the puma or panther, armadillos incased in bony plates, and the rhea or American ostrich.

The lower slopes of the east side of the Andes in the north, and the west side in the south, are heavily clothed with forests.

The chief animals in the Andes are the llama and alpaca, which are related to the camel, but much smaller. The llama is used as a beast of burden, and the wool of the alpaca furnishes a fine fiber for cloth. The condor, a large bird, lives high up among the Andes. It resembles a hawk, and feeds upon decaying animals, though it is powerful enough to attack and kill sheep and small deer.

People. — South America is thinly settled, especially in the wet and densely wooded silvas. The arid region in the south is also sparsely inhabited. The pampas and the highlands have more people because the climate in those regions is pleasant and healthful. The densest population is found about the mouth of the Plata River and along the fertile east coast.



Collecting Rubber.

The Spanish and Portuguese were the chief Europeans who settled in South America. The Spanish occupied the lands along the Andes highland and all the southern end of South America, while the Portuguese settled in the east, chiefly in Brazil. Both of these people intermarried with the Indians, and their children were half-breeds. Negro slaves were also introduced by the Portuguese. In Brazil, therefore, the people comprise not only Indians and descendants of the Portuguese, but also half-breeds and negroes.

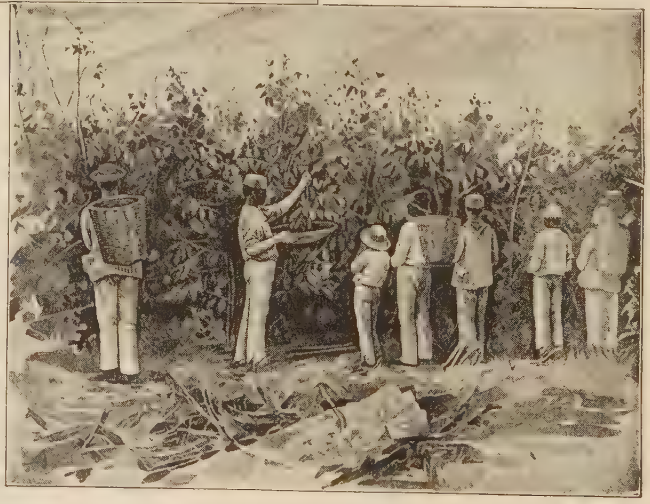
The languages spoken in South America are chiefly Portuguese in Brazil, and Spanish throughout the remainder of the grand division, except Guiana.

Wild Indians still live in the silvas, among the Andes, and in the deserts of the south.

Government. — The South American countries all belonged at one time to European nations. Now they are all independent republics, with governments somewhat like that of the United States, except British, Dutch, and French Guiana.

In nearly all the countries of South America the Roman Catholic is the prevailing form of religious belief.

Industries. — The chief occupations of the people in South America are agriculture, herding, and mining.



Picking Coffee.

Rio de Janeiro, Brazil.

More than half the world's supply of coffee, besides much sugar cane, rice, tobacco, and tropical fruits, are grown near the eastern and northern coasts. About half the rubber used in the world comes from the silvas. Wheat and an herb called *Maté*, or Paraguay tea, are extensively cultivated in the south. In the valleys and on the highlands of the Andes are cultivated corn, potatoes, and cacao beans, from which cocoa and chocolate are made; and from the forests on the east slope of these mountains is collected much Peruvian bark, of which quinine is made.

The herding of cattle and horses is the leading industry on the pampas and llanos, and the millions of sheep raised on the pampas yield a large part of the world's supply of wool. Wool is also obtained from the alpaca and from sheep on the Andes highland.

There are rich mines of silver, gold, and copper in many parts of the Andes, coal is mined in the south, and nitrate of soda, used for making fertilizers, is abundant in the desert region west of the Andes. Diamonds are found in Brazil, and much gold is obtained in the Guiana highlands.

There are comparatively few railroads in South America, and none which extend far into the interior. Hence the interior trade is carried on almost solely on the three great river systems.

United States of Brazil. — Brazil is about as large as the United States, but contains only one fifth as many people.

The northwestern half is covered with dense forests, from which rubber, Brazil nuts, and cabinet and dye woods are obtained.

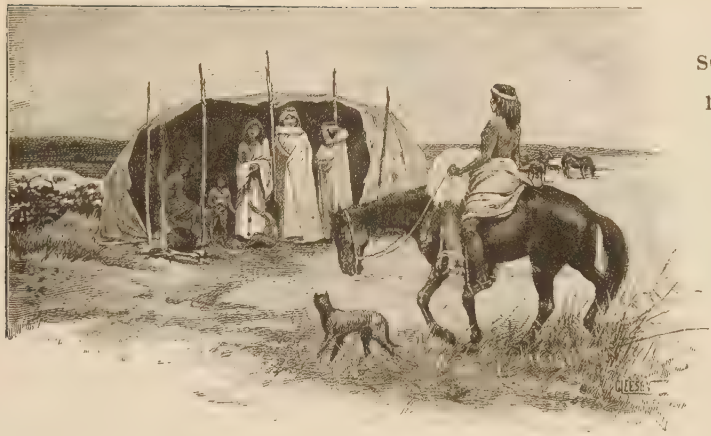
The south lies in the pampas region, where cattle, sheep, and horses are raised. Along the east coast are great sugar and tobacco plantations, and on the highland in southeast Brazil half the coffee of the world is grown.

Rio de Janeiro, the capital, has a fine harbor and exports large quantities of coffee. It is the second city in South America. *Pernambuco* and *Bahia* are sugar- and tobacco-exporting centers. *São Paulo* is in the coffee-producing region. *Para* ships the forest products of the silvas.

Buenos Aires, Argentina.

Argentina, after Brazil, is the largest country in South America.

The chief wealth of the country consists in the sheep and cattle herded on the pampas. Wool, hides, tallow, cured beef, and other animal products are exported. In the Plata



Natives of Southern Argentina.

valley are the best wheat lands of South America, and much wheat is exported to Europe.

Southern Argentina is a desert inhabited only by wandering Indians who hunt the guanaco, a kind of llama.

Argentina has more railroads, and is growing in population and prosperity more rapidly, than any other country in South America.

Buenos Aires is the largest city in the southern hemisphere. Although it has a poor harbor, it is the great shipping point of the Plata basin. *Rosario* and *Cordova* are important trade centers.

Uruguay is situated in the Plata basin, and, like Argentina, raises sheep, cattle, and wheat. These two countries furnish about one sixth of the world's supply of wool.

Montevideo is the capital and chief seaport.

Paraguay is an inland country in the Plata basin. The chief pursuits of the people are cattle raising, and gathering maté, which is extensively used in the place of tea in South America.

Asuncion is the capital.

Chile is a long, narrow country larger than the state of Texas. The climate is arid in the north, but very rainy in the south. Near the center the winters are mild and wet, and the summers dry and pleasant.

The chief export of Chile is nitrate of soda, or saltpeter. It is mined in the desert region in the north, and is exported to Europe.

The short streams from the Andes are used to irrigate farms which produce grain, fruits, and potatoes. Many sheep graze on the mountain slopes, and copper and silver are mined extensively.

Southern Chile has fine forests of cedar, oak, and beech, and valuable coal mines.

Santiago is the capital and largest city. *Valparaiso* is the chief seaport. *Iquique*, near the mines of northern Chile, is the nitrate-shipping port.

Bolivia. — In Bolivia silver and tin are mined; grain, beans, and potatoes are cultivated; cattle, sheep, and llamas are herded on the highland; and Peruvian bark, cacao beans, and rubber are collected in the eastern forests.

Sucre is the legal capital, though *La Paz*, the largest city, is the usual seat of government.

Peru lies on both sides of the Andes. Its rainy eastern slopes are forest-clad.

Valparaiso, Chile.

Most of the people live on the dry western slope, and by irrigation cultivate large crops of sugar, coffee, and cotton. These products, together with Peruvian bark, cacao beans, rubber, and silver, are the chief products of the country.

Many remains of the ancient, half-civilized Indians called Incas are found in Peru, and their descendants still live in the region around their ancient capital Cuzco.

Residence, Bogota, Colombia.

Lima is the capital and largest city. *Callao* is its seaport. *Arequipa* is an important city in the south.

Ecuador is high and mountainous and contains several of the largest volcanoes in the world.

Most of the people are Indians, and live on the highlands, where the climate is like perpetual spring. The chief product of Ecuador is cocoa.

Quito is the capital. It is nearly two miles above sea level. *Guayaquil* is the seaport.

Colombia is traversed by three chains of the Andes in the west, but slopes to the llanos in the east.

Coffee, gold, silver, cattle, hides, tobacco, and bananas are exported.

Bogota is the capital and largest city. *Medellin* is in the chief gold-mining region. *Barranquilla* is a commercial center and seaport.

United States of Venezuela. — Venezuela is mountainous in the north and south, but the central part lies in the llanos.

Gold is mined, and coffee, cocoa, and fruits are produced in the north. Cattle and horses are raised on the llanos.

Caracas is the capital and largest city. *Valencia* is the chief seaport.

Guiana is much like Brazil in surface, climate, and vegetable products.

The western part is a British colony, the central colony belongs to the Dutch, and the eastern one to the French.

Sugar, cocoa, pepper, and gold are the chief products. The planters are whites, but the laborers are chiefly negroes.

TEST EXERCISES FOR REVIEW

Where is South America? Where and how is it connected with North America? Compare the two Americas in shape; in size; in coast line and islands; in surface features.

Describe the Andes highland. Of what ranges and plateau is it composed? How does it compare with the Rocky Mountains? Describe the smaller highlands of South America. What are they called? Describe the great lowland plain of South America.

What is said of the climate of South America with respect to heat and cold? with respect to moisture in the Torrid Zone? in the Temperate Zone? How is the year divided into seasons in South America?

What three river systems drain most of South America? Tell what you can of the Orinoco system; of the Amazon system; of the Plata system; of the Sao Francisco system; of the streams flowing to the Pacific; of Lake Titicaca; of the divides separating the great river systems.

Describe the vegetation and animal life of the llanos, of the silvas, of the pampas, of the Andes. Where is South America most thinly, and where most thickly, settled? What parts of South America were settled by Spaniards? by the Portuguese? What is said of Indians and negroes?

What form of government and what form of religion are common in South America? What are the most valuable vegetable products? animal products? mineral products? What is said of the trade routes?

Describe the location, surface, chief products, and principal cities of Brazil, Argentina, Uruguay, Paraguay, Chile, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guiana.

EURASIA

EXERCISES ON THE MAP

See maps of Hemispheres, pp. 12, 13. In which continent is Eurasia? In what part of the world is it in comparison with America? In what zone is most of it? What oceans border it? What grand division is to the southwest? What isthmus connects Eurasia and Africa? What two seas separate them? What smaller sea is connected with the Mediterranean Sea?

See map of Eurasia, p. 102. — How does Eurasia compare in size with North America? (See maps pp. 26 and 102.) What strait is at the northeast corner of Eurasia? Follow with your pencil, from the Isthmus of Suez to Bering Strait, the line of dots which passes near the sources of rivers flowing into the Black Sea and the Arctic Ocean. This line marks the top of the Atlantic and Arctic Ocean slope of Eurasia. From the Isthmus of Suez trace to Bering Strait the other line of dots which passes near the sources of southward or eastward flowing rivers. This second line marks the top of the Indian and Pacific Ocean slope of Eurasia. What sea and two lakes are in the region between these two lines? These bodies of water have no outlets, and none of the streams in this region reach any ocean. What two rivers flow into Caspian Sea? What river is west of the Volga River? What waters would a boat pass through in floating from Dnieper River to the Atlantic Ocean? Why is the Dnieper River said to be on the Atlantic slope?

A Peak in the Caucasus Mountains.

Where is Caspian Sea? What mountain range is north of Caspian Sea? What range is west? What is the part of Eurasia called that lies west of the Ural Mountains and north of the Caucasus? What is the other part of Eurasia called?

What great bay and what sea indent the southern coast of Asia?

DESCRIPTION

Position and Size. — Eurasia contains both Europe and Asia and is the largest grand division in the world. It is more than twice as large as North America. It occupies the northern part of the Eastern Continent. In the northeast it is separated from North America by Bering Strait, and in the southwest it is connected with Africa by the Isthmus of Suez.

Shape and Coast Line. — The shape of Eurasia is somewhat like a triangle with the apex toward the west.

The coast line is very irregular. In the east, the coast seas are hemmed in by groups of islands. More peninsulas project from Eurasia than from any other grand division.

Highlands. — A large part of Eurasia is highland. The principal highland extends from Bering Strait southwestward to central Asia, and thence northwestward to the outlet of the Black Sea. West of this sea the highland continues along the northern border of the Mediterranean Sea to the Atlantic Ocean. Some of the plateaus and mountains of this highland are the most lofty in the world. South of the highland, spurs or detached highlands extend nearly to the coast and form its great peninsulas.

Lowlands. — Most of the northern part of Eurasia is a lowland, extending from the Atlantic eastward nearly to Bering Strait. This vast plain is broken only by the low Ural Mountains near its center, and by the low Kiolen Mountains in the northwest.

South of the Ural Mountains the plain sinks below sea level, and in this depression lies Caspian Sea, the largest lake in the world. The Ural Mountains and Caspian and Black seas separate Europe from Asia.

On the southern and eastern sides of Eurasia are several broad isolated lowlands.

A Town on the Caspian Sea.

Drainage. — A vast region in central Eurasia sends no drainage to the ocean. This region includes the desert plateau of Gobi and part of the plateau of Tibet in the east; and in the west it includes the plateau of Iran and most of the lowland north of it (see map p. 102). In the lowland portion are several large rivers, but they end in lakes such as Caspian Sea, Lake Aral, and Lake Balkash, which have no outlet, and which are consequently salt. Most of the highland portion is a desert and has but few streams.

North and west of this region of interior drainage, Eurasia has a long and gradual slope to the Arctic Ocean and the great arms of the Atlantic Ocean. This slope is traversed by many large and gently flowing rivers which are navigable when free from ice. South and east of the region of interior drainage the slope is more abrupt to the Pacific and Indian oceans. This slope is also traversed by many large rivers, and most of them are navigable.

People. — Eurasia contains more than three fourths of all the people in the world. Most of them live in the southeastern and northwestern parts of the grand division. These are the most thickly settled portions of the world. The lowlands in the northeast and the great highlands are quite thinly settled.

Eurasia is occupied by the Caucasian or white race, and by the Mongolian or yellow race.

The Caucasian race occupies nearly the whole of Europe, and southwestern Asia from the Mediterranean Sea to the Bay of Bengal. The Europeans and their descendants are the most highly civilized people in the world. The Caucasians in southwestern Asia are less civilized than the Europeans.

The Mongolian race occupies eastern and northern Asia and extends westward into Europe in the extreme north and near the Black Sea.

The bulk of the race is half civilized, though some tribes in the north are scarcely more than savages, while the Japanese people in the east are quite civilized.

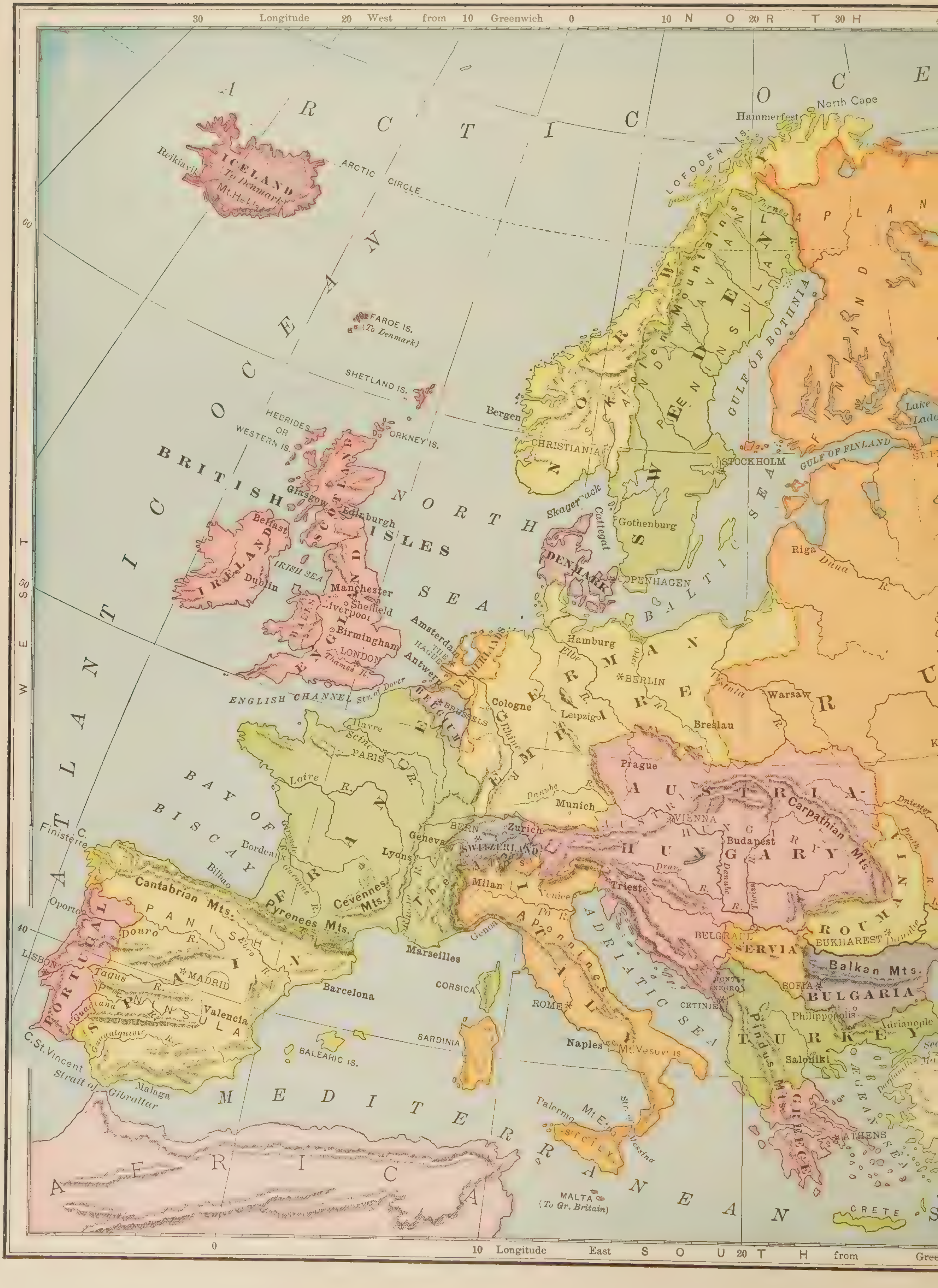
The great islands southeast of Asia are occupied by a branch of the yellow race sometimes called the *Malay* or *Brown Race.* This includes many savage tribes and some half-civilized peoples.

TEST EXERCISES FOR REVIEW

Where is Eurasia? What is its general shape? Compare it with North America in size by tracing on tissue paper the outline of the North American mainland (p. 26) and laying the tracing on the map of Eurasia (p. 102). Is its coast line more or less irregular than that of North America? Which coast is least irregular?

Describe the highlands of Eurasia; the lowlands. Describe the drainage, slopes, and basins of Eurasia. What does the great region of interior drainage indicate concerning the rainfall of that region? What are the two main divisions of Eurasia, and what physical features serve to separate them?

What proportion of the population of the world does Eurasia contain? What parts of the grand division are most thickly settled? What races have their home in Eurasia? What can you say of the Caucasian race? of the Mongolian? of the Malay?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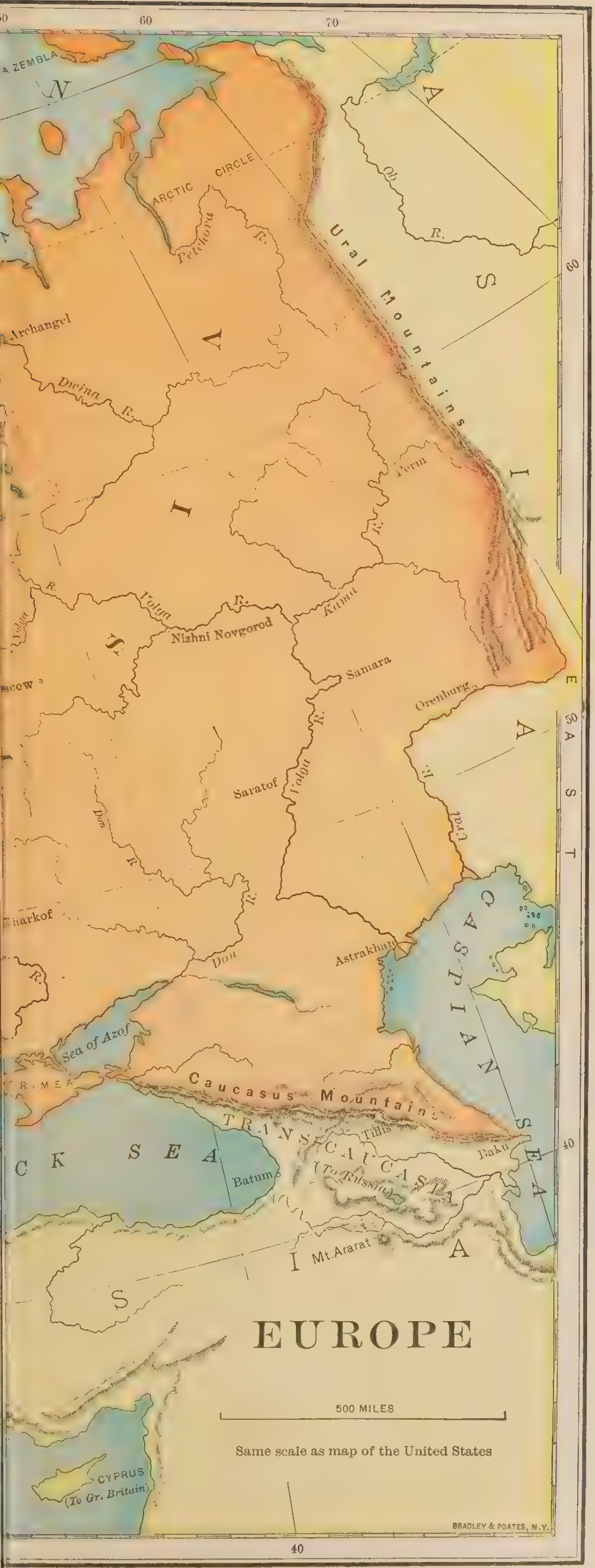
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EUROPE

EXERCISES ON THE MAP

Position. — In what zone is most of Europe? What parallel of latitude passes through central Europe? Trace this same parallel across North America on map p. 26. What great country of North America lies in the same part of the North Temperate Zone as Europe?

What land and sea lie east of Europe? What oceans lie north and west? What great sea lies south?

Coast Line. — What sea indents the north coast? What two seas and bay indent the west coast? What two gulfs extend inland from Baltic Sea? What waters connect Baltic Sea with North Sea? What two peninsulas are west of Baltic Sea? What large island group is west of Europe? What channel and strait separate it from the mainland? What peninsula is between Bay of Biscay and Mediterranean Sea? What strait connects Mediterranean Sea with the Atlantic? What two seas extend inland from the Mediterranean? What large sea is northeast of the Ægean Sea? How are they connected? Name some islands of the Mediterranean belonging to Europe.

Surface. — What part of Europe is most mountainous? What mountains are north of the Italian peninsula? Name three ranges west of the Alps; three east of the Alps. What mountains are in Italy? in Greece? What range is east of Europe? What mountains are in the northwest?

Drainage. — Trace from the Ural Mountains to the Strait of Gibraltar the divide between the streams flowing north or west, and those flowing south or east. On the north slope mention two rivers that flow to the Arctic waters; three to the Baltic; two to North Sea; one to English Channel; three to Bay of Biscay; four to the Atlantic. On the south slope mention two streams that flow to Caspian Sea; four that flow to the waters of Black Sea; one to Adriatic Sea; two to Mediterranean Sea. Name two lakes in the northern part of Europe.

Countries. — What country occupies eastern Europe? Where is Sweden? Norway? Denmark? the German Empire? the Netherlands? Austria-Hungary? Roumania? Servia? Bulgaria? Turkey? Greece? Italy? Switzerland? Belgium? France? Spain? Portugal? Name the divisions of the British Isles.

Cities. — Name and locate the capital and chief cities of each country of Europe.

Map Drawing. — Sketch and resketch an outline of the mainland of Europe like this figure, but larger, until you can reproduce its shape quickly from memory.

A Glacier in the Alps, Switzerland.

DESCRIPTION

Position and Size. — Europe is a large peninsula projecting from the northwestern part of Eurasia. Like Canada it lies mostly in the North Temperate Zone, and extends into the Frigid Zone.

It is but little larger than the United States, but its population is nearly five times as great.

The Coast is bordered by many islands, of which the British Isles are the largest and most important. The coast is very crooked, with many peninsulas, and so deeply indented by seas, gulfs, and bays that no part of western Europe is more than four hundred miles from the sea.

Surface. — The great highland of Eurasia extends through southern Europe, forming a steep slope toward the south, but a more gradual slope to the north. The highest mountains are the Alps and the Caucasus; they are snow-capped, and great glaciers creep down their slopes.

The Carpathian Mountains extend eastward from the Alps and inclose the fertile plains of Hungary. The Apennines and Pindus extend southeastward through the Italian and Grecian peninsulas. West of the Alps are the Cevennes and Pyrenees mountains. The plateaus south of the Pyrenees form the Spanish peninsula.

Low mountains traverse the peninsula of Norway and Sweden from northeast to southwest. They rise abruptly from deep narrow bays or fiords on the west coast, but descend more gently toward the plains on the east. In the north they are covered with snow and glaciers.

The rest of Europe is a smooth lowland plain, which is bordered on the east by the gentle slopes of the low Ural Mountains.

Drainage. — The main divide of Europe extends southwestward from the Ural Mountains to the Strait of Gibraltar, and is low throughout most of its length. The largest rivers lie southeast of it and are the Volga, Don, Dnie-

Fiord, Norway.

per, and Danube. The most important rivers of the northern slope are the Vistula, Elbe, Rhine, Seine, and Loire. The Danube, Po, Rhone, and Rhine have formed great deltas at their mouths. Nearly all the rivers of Europe are used in commerce, the smaller ones having been deepened and improved to make them navigable, and connected by canals with neighboring streams.

A vast number of lakes dot the surface of northern Europe; of these Ladoga and Onega are the largest. Many small but beautiful lakes are found in the Alpine region.

Climate.–Though Europe is situated farther north than the United States, its climate, except in the east, is generally moister and more equable, as it is open to the mild and damp southwest winds from the Atlantic.

Castle on the Rhine.

Eastern Europe has cold winters and warm summers and is much drier than western Europe. Most of the rain here falls in the summer. In the northeast ice and snow lie on the lowlands for many months.

Cold winds very rarely reach southern Europe south of the great mountain ranges, and the lands along the Mediterranean have an exceptionally warm climate. The summers there are dry, however, and in most places irrigation is needed for growing crops.

Vegetation. — Along the shores of the Arctic Ocean is a wide stretch of treeless tundra, a snowy waste in winter and a swamp in summer.

South of the tundras most of northern Europe is covered with forests of cone-bearing trees, with fine forests of oak, beech, and other hard woods farther south. The great southern highland also contains extensive forests of fir, beech, and oak. Central Europe is mostly open prairie land, from the well-watered Atlantic coast to the dry steppes near the Caspian Sea.

South of the highlands, the olive, myrtle, almond, orange, mulberry, and cork oak trees are found.

Animals. — Europe has only a few kinds of large wild animals, and these are mostly confined to the forest regions of the north and to the great highland in the south. In the north are elk, beaver, reindeer, and some smaller fur-bearing animals. On the southern highlands are found the timid chamois and the ibex or long-horned goat. The brown bear, the lynx or wild cat, and the wolf live in both the northern and the southern region.

People. — Europe is the smallest grand division, yet it contains nearly one fourth of the people of the world. It is more thickly settled than any other grand division.

The most thickly settled parts are in the west, and these parts are most highly civilized and have industries similar to those of the northern section of the United States.

Most of the people belong to the Caucasian race, but in the northeast and southeast there are many people of Mongolian descent.

Picking Grapes, Southern Europe.

Harvesting Wheat, France.

Industries. — All the industries of man are necessary to support a high state of civilization, and all the industries are carried on in Europe.

The raising of grain and domestic animals is important in nearly all parts of the grand division, but especially in the plains of Russia and Hungary, which may be called the granary of Europe. In the north central part are also raised great quantities of beets for making sugar and flax for making linen. Throughout the southern part many people are occupied in the raising of grapes for wine and raisins, the raising of olives, oranges, lemons, and chestnuts, and the rearing of silkworms.

Manufacturing is perhaps the most important industry of western Europe. This is the great cloth-making region of the world. Cotton, woolen, linen, and silk are woven here to a much greater extent than anywhere else. Iron and steel and all kinds of articles composed of these metals, from steamships and machinery to needles and pins, are also made here in great quantities. But besides these, nearly every kind of article used by man is made in western Europe.

The mining of coal and iron and other useful minerals is very important in many localities; and lumbering in the north, and the fisheries throughout the long coast line are very valuable.

There are so many people in Europe that, in spite of the great quantity of grain and meat produced, most of the countries have to import food as well as raw materials from foreign countries in exchange for manufactured articles. This gives rise to a very great commerce. The commerce is carried on by means of railways, rivers, and canals, and by coasting vessels, between the various countries of Europe, and by a great number of ocean vessels, which trade with all parts of the world.

Countries. — Europe is divided into about twenty countries, the people of which have different languages and customs.

In Italy, Spain, Portugal, France, and Belgium the people speak languages derived from the Latin; hence these countries are called the *Latin Countries.* North and northeast of these lie Great Britain, Holland, Germany, Denmark, Norway and Sweden, Austria, and Switzerland. Languages resembling the German are spoken in these countries and consequently they are called the *Germanic Countries.* Russia, Bulgaria, Servia, and Montenegro are called *Slavonic Countries,* because the languages spoken in these resemble that spoken by an ancient tribe of people called *Slavs.*

Religion and Government. — All the countries of Europe, except Turkey, profess belief in the Christian religion.

The Turks profess the Mohammedan religion; they believe in God, but hold Mohammed to be his prophet.

Two of the twenty countries of Europe are republics, France and Switzerland. All the rest are monarchies. Most of these countries, however, are limited monarchies, in which the people have a voice in making the laws. Only two, Russia and Turkey, are absolute monarchies, in which the chief ruler has absolute power both to make and to execute the laws.

TEST EXERCISES FOR REVIEW

Where is Europe? What part of North America is in the same latitude? Compare it in size with the United States by tracing on tissue paper the outline of our country (p. 33) and laying the outline over the map of Europe (p. 86). Why is no part of western Europe very far from the sea? What are its principal peninsulas and seas?

Describe the general surface of Europe; the principal mountain ranges; the great lowland. Where is the main divide of Europe? Describe the more important rivers. Which have deltas? Where are the lake regions?

Describe the climate of western and central Europe; of eastern Europe; of southern Europe. Describe the general character of the vegetation in the different parts of Europe. What kinds of wild animals are there?

How does Europe compare with the United States in population? What part of Europe is most thickly peopled? To what race do most of the people belong? What are the most important agricultural productions? What is the chief industry of western Europe? its chief products? Why is the commerce of Europe very great? How is it carried on?

How may the countries of Europe be divided into three groups? What countries are in each group? How do the Turks differ from all other Europeans? In what respect is Russia like Turkey? In what respect do France and Switzerland differ from all other European countries?

Country Cottage, Ireland.

The United Kingdom of Great Britain and Ireland occupies the British Isles. The largest island, called *Great Britain*, contains England, Wales, and Scotland.

Bridge over the Firth of Forth, Scotland.

Great Britain and Ireland together are about twice as large as New England. But their population is half that of the United States.

Northern Scotland, northwestern England, Wales, and parts of Ireland are traversed by low, picturesque mountains, among which are beautiful clear lakes.

The climate is equable and moist, but dense fogs are frequent. The moisture makes the vegetation so fresh and green that Ireland is often called the "Emerald Isle."

Many of the rivers of the British Isles have wide and deep mouths, or estuaries, which in Scotland are called *Firths*.

Though eastern England, southern Scotland, and Ireland have much fertile soil, yet the farmers raise only a small part of the food needed by the people. The pastures support many sheep and cows; but meats, dairy products, and wool, as well as wheat and flour, are imported in large quantities.

The chief industry in the British Isles, and particularly in England, is manufacturing. More cotton and woolen cloth is made than in any other country, and much linen is also woven. Coal and iron are abundant, and much iron and steel, machinery of all kinds, and tools and cutlery are manufactured, and great numbers of iron and steel ships are built.

Great Britain has more ships than any other country, and these are constantly engaged in importing food and raw materials, such as cotton, wool, flax, hides, iron ore, lumber, etc., and in shipping away the varied manufactures to all parts of the world

London.

Liverpool.

Edinburgh.

The government is a limited monarchy. The laws are made by a *Parliament*, composed of men, most of whom are chosen by the people. The laws are enforced in the name of the king by ministers controlled by Parliament.

Great Britain has possessions in all the grand divisions and in many islands; the most important are Canada, the continent of Australia, India in Asia, and southern Africa. The mother country with all her possessions forms the British Empire.

London, the largest city and greatest seaport in the world, is the capital. It is situated on the Thames estuary.

Glasgow, in Scotland, is a great center of manufacturing and shipbuilding. *Liverpool*, another great seaport, has immense exports of manufactured goods and imports of raw materials and food. *Manchester* makes more cotton goods than any other city in the world. *Sheffield* makes knives, razors, and scissors, besides many other iron and steel goods. *Edinburgh* is the chief educational center and old capital of Scotland. *Dublin* is the capital of Ireland. *Belfast* is a center of linen manufacture.

The German Empire. — Germany occupies a broad plain along the Baltic and North seas. Through this plain flow several noble rivers, of which the Rhine is most noted.

Germany is famous for its schools and universities, and its great writers and musicians. It has a large and fine army.

Castle, Germany.

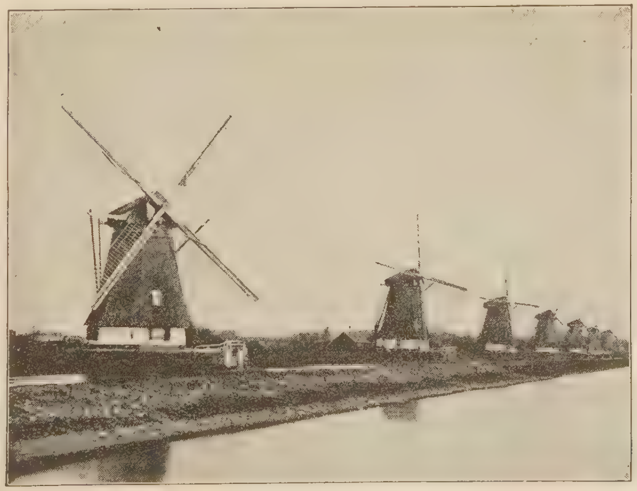
A Street in Berlin.

The country is one of the most productive in Europe. Great crops of sugar beets, potatoes, rye, and fruits are cultivated. Many steep hillsides are terraced and planted with vines.

The mountains are rich in coal, iron, zinc, and silver; and manufacturing is very active. Iron, steel, cannon, sugar, woolen and linen goods, and toys are the most important products.

Many little countries formerly occupied this region, but in 1871 they were united into the *German Empire*. The king of Prussia is emperor of Germany. It is his duty to enforce the laws made by representatives of the people.

Berlin, the capital, is one of the largest cities of Europe, and is noted for its palaces, parks, and great schools. *Hamburg*, on the Elbe, is a great seaport. *Munich* has picture galleries and breweries. *Cologne*, on the Rhine, is the center of a great manufacturing district. *Breslau* has great cotton mills.



Windmills, Holland.

The Netherlands, or Holland, is so low that embankments of earth, called *Dikes*, are built along the shore to prevent the sea from overflowing the country.

The water which collects on the surface is pumped up by great windmills into canals which traverse the country in many directions.

In the summer boats sail on many of the canals; and in the winter when the canals are frozen, men, women, and children go about on skates.

The people of Holland are called *Dutch*. They are energetic, industrious, and thrifty, and therefore wealthy. They are excellent farmers and raise large quantities of grain, potatoes, and sugar beets. The low grassy meadows make excellent pasturage, and

AMSTERDAM.

fine cattle, butter, and cheese are produced and exported.

Clay is abundant, and many tiles and bricks are made.

The Dutch have possessions in the East and West Indies and own a part of Guiana in South America.

Amsterdam, the largest city, is one of the greatest seaports of Europe. Canals run through the streets. Diamond cutting employs many people in this city. *The Hague* is the capital.

Norway and Sweden occupy the Scandinavian peninsula.

Norway is full of low, rugged mountains, crowned in many places with snow and ice. The valleys in the north are filled with glaciers. Sweden is smoother and contains many shallow lakes and marshes in the east.

The west coast is deeply cut by many narrow fiords, which make it favorable to fishing and commerce. Cod and herring are caught in great numbers, especially near the Lofoden Islands.

LAPLANDERS.

The lower slopes of the mountains are covered with Norway pine, and much lumber is cut and sawed and either used for building ships at home or sent to other European countries.

HAYMAKING, NORWAY.

In Sweden grain, potatoes, and some fruits are grown. Cattle, sheep, and small horses are pastured on the mountain slopes of both countries.

The winters are long and very cold, and the streams and lakes are frozen over for months at a time. The extreme northern part of Norway lies in the Frigid Zone. During the longest days of the year the sun does not set there at all, but can be seen above the horizon all night long for more than two months. Laplanders live in that region. They raise reindeer and get most of their food and clothing from them. These animals are also used to draw the people about in sledges.

Parliament House, Vienna.

For many years Sweden and Norway were under the same king, but now each country is a separate kingdom.

Stockholm is the capital of Sweden. *Christiania* is the capital of Norway.

Denmark occupies the peninsula south of Norway and several islands in the Baltic Sea.

Hills or dunes of sand along the western shore form natural dikes to the lowlands of the peninsula. Within the dunes are meadow lands on which are pastured fine cattle, horses, and sheep. Much grain is raised.

The Danes are good sailors and fishermen, and control the fisheries of Iceland and Greenland.

Copenhagen, on an island, is the capital and largest city.

Austria-Hungary is made up of two countries, Austria and Hungary. It is a monarchy governed by an emperor, but the laws are made by representatives of the people.

Austria contains many mountains and valleys, while Hungary is a great treeless plain, bordered by the Carpathian Mountains.

The Danube flows through both countries and in its upper course is a very beautiful river.

Most of the Austrians are German-speaking people, but many of the people of Hungary are descended from the yellow race.

In some parts of Austria, the people are engaged in carving toys. In other parts glass, leather goods, and pianos are manufactured. The fertile plains of Hungary produce wheat, tobacco, and sugar beets, and the mountain slopes form excellent grazing lands. The vine is widely cultivated, and the orange and lemon grow in the south.

Vienna, the capital of the empire, is one of the largest and finest cities of Europe. It is noted for its schools of medicine, and the manufacture of leather goods and pianos.

Budapest, the capital of Hungary, has very extensive flour mills. *Prague* manufactures

Scene in the Austrian Alps.

Unloading Grain Boats, Budapest.

Post Office, Geneva.

engines. *Trieste* is the seaport.

Switzerland is much visited because of its fine scenery. The mountain tops are covered with perpetual snow, and more than four hundred glaciers creep down the upper valleys.

Farm Scene, Switzerland.

The people in the north speak German, in the south, Italian, and in the west, French. Their government is a republic.

The mountain slopes are fine pasturing lands, and butter and cheese of the finest quality are made. Many of the herdsmen are skillful carvers, and cut beautiful boxes, toys, and images out of wood while they watch their flocks.

In the cities jewelry, watches, music boxes, and carved toys are made, as well as linens, ribbons, and other woven goods.

Two railroads pass through tunnels nine and twelve miles long under the Alps and connect this country with Italy.

Geneva, on Lake Geneva, is noted for its watches and music boxes. *Zurich* is the largest city. *Bern* is the capital.

REVIEW ON GERMANIC EUROPE

Where is the United Kingdom of Great Britain and Ireland? How does it compare with our country in size and population? Describe the coast line and surface; the climate and vegetation; the chief industry; the commerce; the government. What is the British Empire? Characterize the chief cities.

Where is the German Empire? Describe its surface and drainage; its people and industries; its government. Characterize the chief cities.

Describe the Netherlands and its drainage; the people and their industries. What are its colonies? Characterize its chief city.

Where are Norway, Sweden, and Denmark? Describe each country and mention its chief industries. Characterize the chief city of each.

Where is Austria-Hungary? Describe the surface and drainage; the people and their principal industries. Characterize the chief cities.

Where is Switzerland? Describe the surface, people, government, and industries. Characterize the chief cities.

France is about as large as the German Empire, but is not so thickly settled. It is one of the wealthiest and most highly civilized countries of Europe.

It lies chiefly in the fertile lowland plain, but in the southeast and south there are many picturesque mountains. Among the most famous is Mont Blanc, the highest peak of the Alps.

Silkworm.

In the lowlands, where the climate is mild and moist, grain, sugar beets, and potatoes are cultivated. Cattle, sheep, and pigs are raised in large numbers, and fine cheese is exported.

BRUSSELS.

In the south millions of mulberry trees are carefully tended and their leaves used as the food of silkworms. Grapes, olives, and other fruits are also grown there, and large quantities of fine wines and olive oil are made.

The French people are noted for their taste and skilled workmanship. Much of the silk and velvet of the world is manufactured by these people, as well as cotton, woolen, and linen cloth, and many fancy articles. The vases and fine chinaware made in France are famous.

The government of France is a republic.

France controls much of northern Africa, the island of Madagascar, part of southeastern Asia, and French Guiana.

Paris, the capital of France, is the most beautiful city in the world, and, next to London, the largest in Europe.

Lyons is the great center of silk manufacture. *Bordeaux* is in the region of vineyards. *Marseilles* is the chief seaport.

Belgium is one of the smallest and the most thickly settled countries of Europe.

FRENCH PEASANTS.

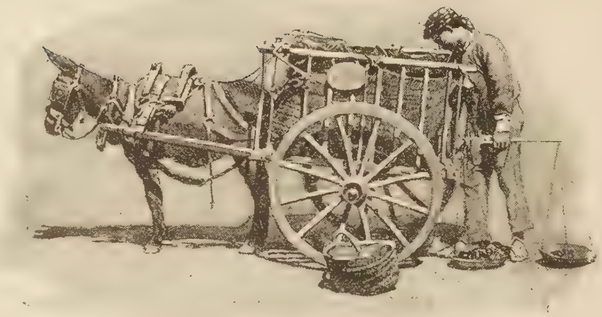
PEASANT'S HOUSE, FRANCE.

In the north large crops of grain, potatoes, vegetables, and sugar beets are grown. The hilly country in the south is sterile, but is underlain with rich deposits of coal and iron. The chief pursuit is manufacturing lace, carpets, and iron and steel.

BOULEVARD, PARIS.

The people in the northern part of Belgium speak a language much like the Dutch. In the south, however, the French language is spoken.

Brussels, noted for its carpets and lace manufacture, is the capital. *Antwerp* is a large and busy port of foreign trade.



Charcoal Seller, Spain.

Spain and Portugal, two independent countries, occupy the Spanish peninsula, which is traversed by many mountain ranges and is generally high and rugged.

The valleys contain fertile lands on which are grown grain, peas, onions, garlic, and beans. The mountain slopes have good pasturage, and cattle, merino sheep, and goats are herded. Along the hot and sunny Mediterranean slopes are fine vineyards, great orchards of prunes, and many olive, orange, and lemon groves.

From the bark of the cork oak of Portugal is obtained much of the cork of the world.

Lisbon.

Spain is rich in minerals. Copper, lead, and quicksilver are extensively mined, and iron and coal are abundant. The chief wealth of Portugal comes from its broad fertile valleys. In these are many vineyards, furnishing the grapes for making the famous " Port " wine.

The Spanish and Portuguese were once famous sailors, and both countries had many colonies in various parts of the world. Through bad government those in America have been entirely lost. Spain has no colonies of importance, while Portugal still owns parts of Africa and some islands.

Each of these countries is a monarchy.

Madrid, the capital and largest city of Spain, is an interior city on the plateau. *Barcelona* is the chief seaport. *Valencia* is also a noted port with some manufactures.

Lisbon, the capital of Portugal, is a busy seaport. *Oporto* is in the wine-producing region.

Italy occupies the central one of the three southern peninsulas of Europe. Through it extend the Apennine Mountains. On the north are the high Alps, always capped with snow. Italy contains two of the most noted volcanoes of Europe, Vesuvius and Etna. The islands of Sardinia and Sicily form part of Italy, but Corsica belongs to France.

The plain of the Po in the north is one of

Farmyard, Italy.

Ancient Ruins, Rome.

Grand Canal, Venice.

the most fertile regions in Europe. On it and in other level river valleys are grown much wheat, corn, oats, and rice, and many mulberry trees.

More raw silk is produced in Italy than in any other country in Europe. Much flax is also grown, and on the hill and mountain slopes are fine vineyards and chestnut groves. In the southern part of the country, where the climate is hotter, though drier, many oranges, lemons, citrons, and olives are produced.

The people have dark complexions and black hair and eyes. Many of the great musicians, painters, and sculptors of the world have been Italians.

Rome, the capital, was one thousand years ago the greatest city in the world. It is full of interesting buildings, and is the residence of the Pope.

Naples is the largest city, and is a busy seaport.

Macaroni Seller, Naples.

Milan is a fine commercial city in the fertile valley of the Po. *Venice* is built on a number of islands, and canals take the place of streets. The people go about in boats called *Gondolas*.

Greece is a small kingdom which occupies the eastern peninsula of the Mediterranean coast. The surface is traversed by mountains, but there are beautiful and fertile valleys. In these are cultivated wheat, barley, and grapes, small grapes called currants, olives, and other fruits. On the mountain slopes the people have flocks of sheep and goats.

Although now unimportant, Greece is famous for its ancient greatness. Twenty-five hundred years ago it extended far beyond its present boundaries, and was the most powerful and cultured nation in the world.

Athens, the capital, was once famous as the center of the world's learning and civilization. It is now inter-

Museum, Moscow.

esting chiefly for the ruins of its ancient buildings and for its art treasures.

Russia occupies the eastern half of Europe and three times as large an area in Asia.

Russia in Europe is a vast level plain. In the north the country is a frozen tundra. South of this lies a forest belt which occupies nearly one third of Russia, and still farther south lies a vast fertile plain on which nearly three fourths as much wheat is grown as in the United States. Large crops of flax and rye are also cultivated, and great numbers of cattle and sheep are herded. The rye is used by the people for bread, and most of the wheat is sold to other countries.

The Ural Mountains contain minerals, and most of the platinum of the world is obtained in the southern part of these ranges. South of the Caucasus Mountains are the greatest petroleum wells in the world.

The Russian Empire is ruled by a monarch called the *Czar*. The people have no part in making the laws.

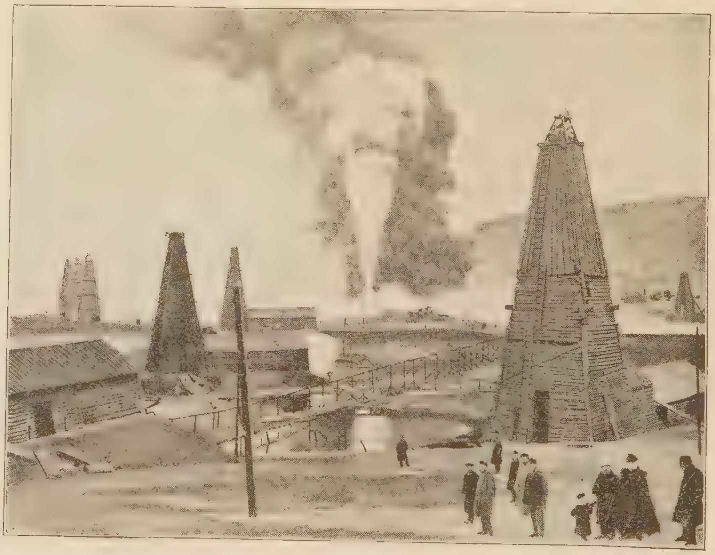
The noblemen in Russia are rich, but most of the peasants are poor and ignorant.

Laplanders and other people of the yellow race live in the north. Some of them are fishermen, but many roam from place to place with their herds of reindeer, whose milk and flesh furnish food, and whose skins furnish clothing. Yellow people called *Cossacks* live in the south and are famous horsemen and soldiers in the Russian army.

St. Petersburg, the capital, is a great seaport, and the largest city of Russia.

Moscow is the winter residence of the Czar and the great railway center of Russia. *Odessa* is an important grain-shipping port on the Black Sea. *Nizhni Novgorod* is famous for its annual fairs.

The Balkan Countries comprise Turkey in Europe, Roumania, Bulgaria, Servia, and Montenegro. All of these, together with Greece, were formerly under the oppressive rule of the Turks, but one after another freed itself, until now only a small part of the Balkan peninsula is left as a part of the Turkish Empire.



Russian Oil Wells.

The Turks came from central Asia and belong to the yellow race. They are fierce and warlike, and many years ago conquered southwestern Asia south of the Black Sea, and then gradually extended their rule over the Balkan peninsula.

The Balkan countries have a rough mountainous surface, in many places clothed with oak and pine forests. **Roumania** and **Bulgaria**, however, lie partly in the valley of the Danube, in which the soil is very fertile and adapted to growing large crops of grain. Grapes and roses are grown on the mountain slopes, and fine wines and attar of roses are made.

Turkish Lady.

Servia and **Montenegro** are high and rugged and have large forests. Many swine feed on the acorns in the forests, and cattle are raised. Corn is grown in the river valleys and forms the chief food of the people.

Each of these four countries is a limited monarchy, the chief ruler being a king or prince, while the people have a voice in making the laws.

In **Turkey**, the government is an absolute monarchy which is very oppressive. The ruler, called the *Sultan*, appoints governors called *Pashas*, who often rob and always heavily tax the people.

Street in Constantinople.

On account of the oppression of the government, little of the land is cultivated. Some grapes, olives, grain, tobacco, and silk are produced, and cattle, sheep, and goats are raised. Beautiful Turkish rugs and carpets, as well as much leather, are manufactured by hand.

Constantinople is the capital and chief city of the Turkish Empire. It has a fine harbor and contains beautiful palaces, gardens, and mosques. The streets, however, are narrow, dirty, and unpaved, and most of the people live in miserable houses.

REVIEW ON LATIN AND SLAVONIC EUROPE

Where is France? Describe the surface and drainage; the climate and productions; the people and government. What possessions has it? Characterize the chief cities.

Where is Belgium? Describe its people, productions, and cities.

Where are Spain and Portugal? Describe the surface and drainage. What are the principal productions? Tell what you can of the people, government, and foreign possessions. Characterize the chief cities of each country.

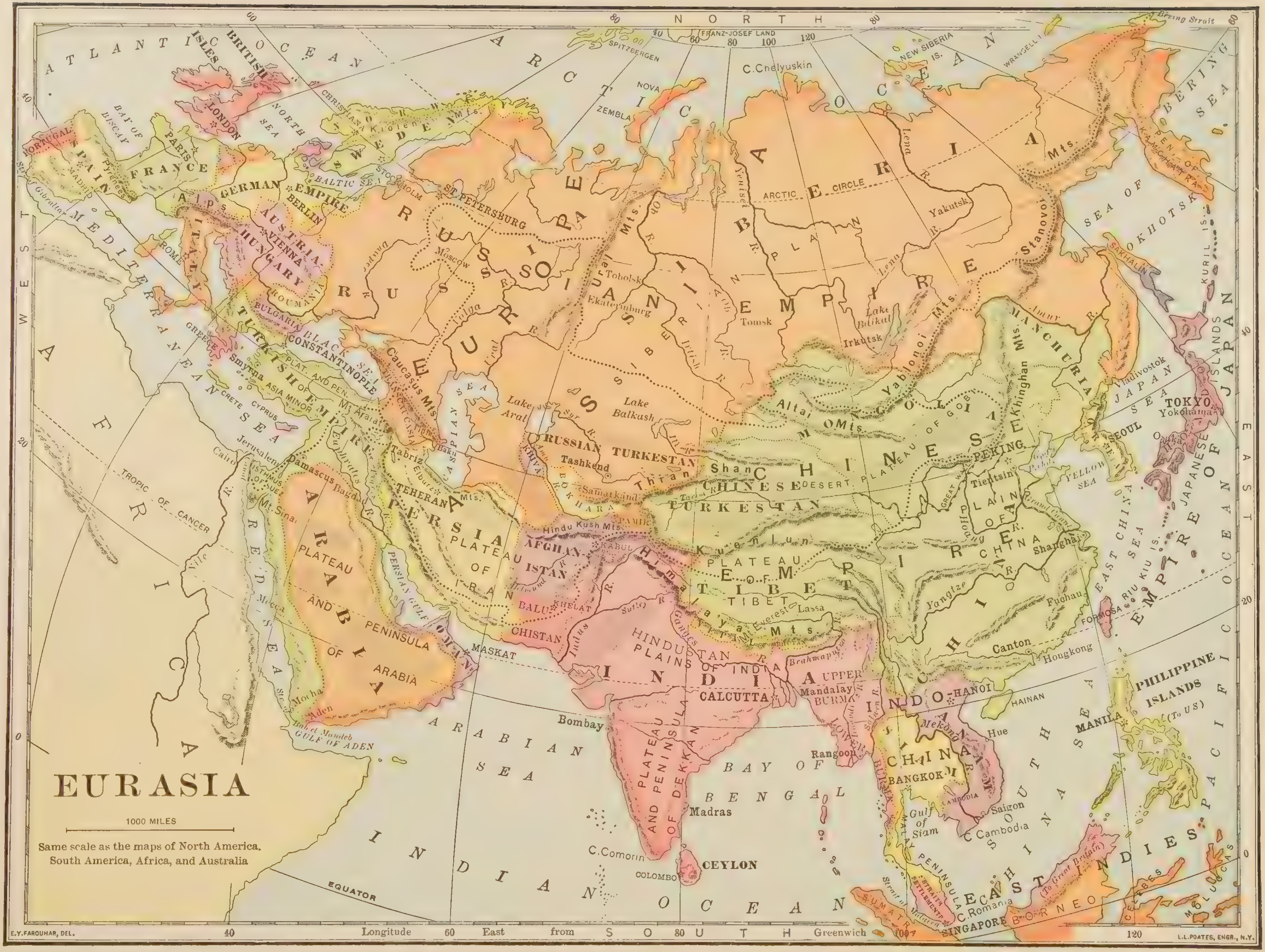
Where is Italy? What islands belong to it? Describe the surface and drainage; the climate and productions. Name its great volcanoes. What is said of the people? Characterize the chief cities.

Locate and describe Greece. For what is this country famous? Characterize its chief city.

Where is Russia? Describe its surface and drainage. What are the chief productions? Tell what you can of the people and government. Characterize the chief cities.

Name and locate the Balkan countries. Describe the surface and drainage; the people and productions of each. Tell what you can of Constantinople.

EURASIA


NORTH
EAST
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Longitude East from Greenwich
ATLANTIC OCEAN
ARCTIC OCEAN
INDIAN OCEAN
PACIFIC OCEAN
ARABIAN SEA
BAY OF BENGAL
SOUTH CHINA SEA
EAST CHINA SEA
YELLOW SEA
JAPAN SEA
SEA OF OKHOTSK
BERING SEA
Bering Strait
MEDITERRANEAN SEA
BLACK SEA
CASPIAN SEA
RED SEA
PERSIAN GULF
GULF OF ADEN
NORTH SEA
BALTIC SEA
BAY OF BISCAY
Str. of Gibraltar
Strait of Malacca
Gulf of Siam
TROPIC OF CANCER
ARCTIC CIRCLE
EQUATOR
BRITISH ISLES
LONDON
FRANCE
PARIS
PORTUGAL
SPAIN
MADRID
Pyrenees
GERMAN EMPIRE
BERLIN
Alps
ITALY
ROME
AUSTRIA-HUNGARY
VIENNA
ROUMANIA
BULGARIA
GREECE
CRETE
CYPRUS
NORWAY
SWEDEN
CHRISTIANIA
STOCKHOLM
Kiolen Mts.
SPITZBERGEN
NOVA ZEMBLA
FRANZ-JOSEF LAND
NEW SIBERIA IS.
WRANGELL I.
C. Chelyuskin
EUROPEAN RUSSIA
ST. PETERSBURG
Moscow
Dnieper
Volga
Ural
Ural Mts.
Caucasus Mts.
TRANSCAUCASIA
Baku
Tabriz
Elburz Mts.
TEHERAN
PERSIA
PLATEAU OF IRAN
AFGHANISTAN
KABUL
Hindu Kush Mts.
PAMIR
BALUCHISTAN
KHELAT
Helmand R.
TURKISH EMPIRE
CONSTANTINOPLE
Smyrna
ASIA MINOR
PLAT. AND PEN.
Mt. Ararat
Euphrates
Tigris
Damascus
Bagdad
Jerusalem
ISTHMUS OF SUEZ
Cairo
Nile
Mt. Sinai
Mecca
Mocha
Aden
Bab el Mandeb
ARABIA
PLATEAU AND PENINSULA OF ARABIA
OMAN
MASKAT
AFRICA
SIBERIA
RUSSIAN EMPIRE
PLAIN
Ob R.
Irtish R.
Tobolsk
Ekaterinburg
Tomsk
Yenisei R.
Lena R.
Yakutsk
Irkutsk
Lake Baikal
Yablonoi Mts.
Stanovoi Mts.
Amur R.
KAMCHATKA
SAKHALIN
KURIL IS.
Lake Aral
Sea
Syr R.
Amu R.
Lake Balkash
Ili R.
RUSSIAN TURKESTAN
Tashkend
Samarkand
BOKHARA
KHIVA
Thian Shan
Altai Mts.
CHINESE EMPIRE
MONGOLIA
PLATEAU OF GOBI
DESERT
CHINESE TURKESTAN
Tarim R.
Kuen Lun
PLATEAU OF TIBET
TIBET
Lassa
Mt. Everest
Himalaya Mts.
MANCHURIA
Khingan Mts.
PEKING
Tientsin
GREAT WALL
PLAIN OF CHINA
Hoang R.
Grand Canal
Yangtze R.
Shanghai
Fuchau
Canton
Hongkong
FORMOSA
HAINAN
COREA
SEOUL
Vladivostok
EMPIRE OF JAPAN
TOKYO
Yokohama
Osaka
JAPANESE ISLANDS
RIU KIU IS.
INDIA
HINDUSTAN PLAINS OF INDIA
PLATEAU AND PENINSULA OF DEKKAN
Indus
Sutlej R.
Ganges
Brahmaputra
CALCUTTA
Bombay
Madras
C. Comorin
CEYLON
COLOMBO
UPPER BURMA
LOWER BURMA
Mandalay
Rangoon
Salwin R.
INDO-CHINA
HANOI
ANAM
Hue
Mekong R.
SIAM
BANGKOK
CAMBODIA
Saigon
C. Cambodia
MALAY PENINSULA
STRAITS SETTLEMENTS
SINGAPORE
C. Romania
EAST INDIES
SUMATRA
BORNEO
(To Great Britain)
CELEBES
MOLUCCAS
PHILIPPINE ISLANDS
(To U.S.)
MANILA
40
60
80
100
120
20
0

1000 MILES

Same scale as the maps of North America, South America, Africa, and Australia

E. Y. FARQUHAR, DEL.

L. L. POATES, ENGR., N.Y.

ASIA

EXERCISES ON THE MAP

Position. — In what direction is Asia from Europe? What natural features partly separate them? What oceans border Asia? In what zones is it? Compare its most northern and southern points with points in America in about the same latitudes.

Coast. — Name two peninsulas on the east coast; three on the south coast; one on the west coast. What waters border each peninsula? What islands are near each coast of Asia?

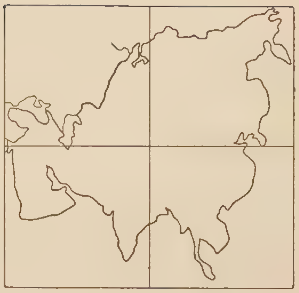
Surface. — Beginning at Bering Strait, name the chief ranges and plateaus of the great highland region. What great plain lies north of this region? What two plateaus and what plains are south of the great highland?

Drainage. — Name three rivers that drain the Siberian plain to the Arctic. What lake is in the basin of the Yenisei? Name four rivers of this plain whose waters do not reach any ocean. Into what do they empty? What two rivers on the main highland do not reach any ocean? Name four rivers on the Pacific slope. Name seven rivers on the Indian Ocean slope.

Himalaya Mountains.

Countries. — What country occupies northern Asia? Where is Tomsk? Irkutsk? What great empire occupies most of eastern Asia? Name and locate its capital. Locate Shanghai; Canton. What country occupies a peninsula on the Chinese coast? What is its capital? What island empire is east of Korea? What is its capital? What two small countries are in southeastern Asia? What is the capital of each? What great country is west of Indo-China? Name and locate its capital; two other Indian cities. What two small countries lie between India and the Chinese Empire? What two countries are west of India? What is the capital of each? What two small countries are north of Afghanistan? Where is Russian Turkestan? What country is west of Afghanistan? Name two Persian cities. What empire is west of Persia? Name and locate its capital; two other Turkish cities. What country is southeast of the Turkish Empire? What is the southeast coast of Arabia called? What is the capital of Oman?

Map Drawing. — Sketch and resketch an outline of the mainland of Asia like this figure, but larger, until you can reproduce its shape quickly from memory.



DESCRIPTION

Position and Size. — Asia lies mainly in the North Temperate Zone, but extends into the Torrid and North Frigid zones. It contains nearly one third of the land of the world and about one half the population.

Coast Line. — The islands bordering the east coast contain many active volcanoes, and terrible earthquakes frequently occur there. Between the islands and the coast are large seas, some of which have excellent harbors. The south coast is indented by large arms of the sea whose coast lines are generally regular. The northern coast is the edge of a low, flat tundra, and is icebound much of the year.

Relief. — The greatest system of highlands in the world traverses central and southern Asia from Bering Strait to the Black Sea. It is highest near the small Pamir plateau in central Asia. From the Pamir, mountain ranges extend both east and west, and between the ranges lie vast plateaus. One of these, the plateau of Tibet, is the highest large plateau in the world. Most of the plateaus are deserts.

Raft on the Yangtze.

The Himalayas, extending southeast from the Pamir, are the loftiest mountains of the world. Mount Everest, the highest peak, is about five and a half miles high. The Kuenlun and Thian Shan chains are nearly as high as the Himalayas.

The great highlands of Asia extend in many places nearly to the eastern and southern coasts. But broad fertile lowlands border the Amur, Hoang, Ganges, Indus, and Euphrates rivers.

Most of northern Asia is a great lowland plain. In the region around the Caspian Sea, this plain is below the level of the ocean.

Drainage. — The northern lowland is drained to the Arctic Ocean by three great rivers, the Ob, Yenisei, and Lena. Their lower (northern) courses are blocked with ice most of the year; but their upper (southern) courses are navigable during the summer.

Four great rivers drain eastern Asia to the Pacific Ocean. The Amur flows through a fertile valley well adapted to wheat growing. The Hoang or Yellow River is noted for its destructive floods, but its fertile flood plain supports a dense farming population. The Yangtze is a great highway of trade. The Mekong and the Yangtze flow through gorges in their upper courses.

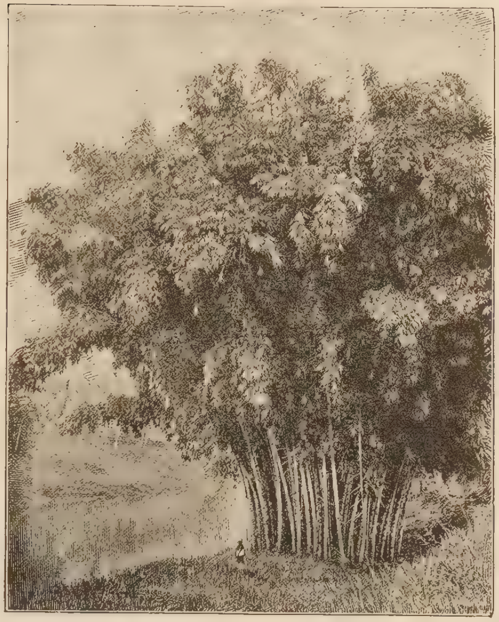
The Salwen and Irawadi flow southward from the great highland. The Brahmaputra, Ganges, and Indus rise in the Himalayas and drain both slopes of those mountains. The Ganges and Brahmaputra unite near their mouths, and have built one of the largest deltas in the world, at the head of the Bay of Bengal. The Euphrates, with its great branch the Tigris, flows down the southern slope of Asia into the Persian Gulf.

Many streams in central Asia flow down from high, snow-capped mountains into the inclosed plateaus and into the region east of the Caspian Sea, where they lose themselves in the sand or flow into lakes with no outlets. Some of the noted salt lakes in this region are Caspian Sea, and Lakes Aral and Balkash.

The only large fresh-water lake in Asia is Lake Baikal, larger than Lake Erie.

Climate. — Northern Asia resembles eastern Europe in climate, but the winters are more severe and there is less rain and snow.

Scene on the Irawadi River.



Bamboo.

The plateaus of central Asia receive little rain, because the winds drop their moisture on the bordering mountains. The plateaus become very hot in the sunshine, but are often uncomfortably cold at night. All of them except Arabia have cold winters.

Southern Asia is in the Torrid Zone and lies on the sunny slope of the grand division. It is consequently very hot. In summer winds called *Monsoons* blow from the ocean and much rain falls. But in winter the monsoons blow from the land and are dry.

Vegetation. — Asia may be divided into five great vegetation belts.

Along the Arctic coast stretches a wide strip of dreary tundra.

South of this is a great forest belt of larches and firs.

Still farther inland lies a wide belt of open steppes, on which wheat, rye, and hardy fruits are raised.

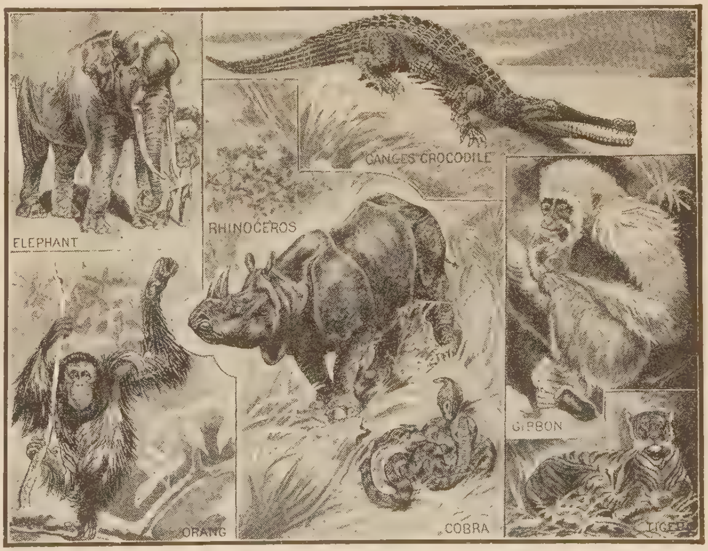
Southwest of this, from Lake Balkash to the Caspian Sea, are arid steppes sparsely covered with coarse grass adapted for pasturage. The plateaus of central Asia are either true deserts or are sparsely covered with coarse grass like the arid steppes.

The moist southeastern slope of Asia contains great forests. Many, called *Jungles*, are so dense and full of undergrowth that one can hardly pass through them. In these forests are many valuable timber trees, cabinet and dye woods, and spices. In other parts of the lowlands are great thickets of bamboo and other tall canelike grasses. Nearly all of this region is adapted to the cultivation of useful plants.

Animals. — Throughout the northern part of Asia the reindeer, wolf, bear, and many small fur-bearing animals are common.

The dry region of central Asia is the home of the horse, camel, donkey, sheep, goat, and cattle, and all of these are found wild in large numbers.

South of the great highland are found the tiger, lion, hyena, leopard, panther, elephant, rhinoceros, buffalo, tapir, monkey, and ape; many kinds of reptiles, as the cobra, crocodile, and python; and many kinds of birds, including jungle fowls, from which chickens are descended.



Some Animals of Southern Asia.

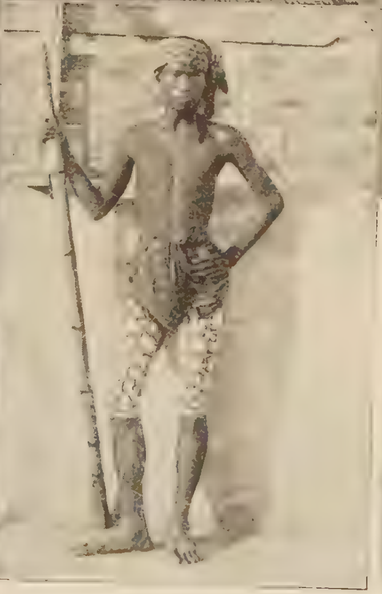
Productions. — Among the chief productions of Asia may be mentioned furs from the far north; wheat, gold, platinum, and graphite, from farther south; wool, camel's hair, hides, live stock, and gum of desert plants from the drier central region; and rice, tea, coffee, indigo, opium, raw silk, sugar cane, cotton, spices, and tin from the southeastern slope.

CHINESE STUDENT.

JAPANESE LADY.

People. — Though Asia contains one half of the people of the world, yet the cold northern part and the dry plateaus are very sparsely peopled. Nine tenths of all the people of this grand division live in the warm and moist region east and south of the highland. There the land is very thickly inhabited.

HINDU LADIES.



BURMESE MAN.

Asia has fewer countries but more kinds of people than Europe.

Many of the Malay people who inhabit the southeastern islands are still uncivilized. The Mongolian peoples living in eastern Asia were civilized three thousand years ago, but have made little progress until recently. Many Mongolian tribes, however, are wandering barbarians. The white peoples who occupy southwestern Asia are darker in color than the Caucasians of Europe. They were once civilized, but have recently made little progress.

A TIBETAN.

Asiatic Russia. — The Asiatic portion of the great Russian Empire occupies the whole of

Horse and Wagon, Siberia.

northern Asia. It embraces Siberia, Russian Turkestan, and Transcaucasia.

This vast region, though almost twice as large as the whole of Europe, does not contain so many inhabitants as the Spanish peninsula. Most of the people live along the southern border, for the northern half of the region is bitterly cold.

Siberia occupies the Arctic and Pacific slopes. In the west it is a smooth lowland, but toward the east it is broken by deep valleys and low mountain ridges.

The upper courses of the Ob, Yenisei, and Lena, with their wide-branching tributaries, and with the great Amur River in the east, have long formed the chief trade route across the country, but a great railway has been completed through southern Siberia, and now extends from the Urals to the Pacific.

The tundras and forests of the north are uninhabited except by a few wild tribes of Mongolian fur hunters. Southern Siberia, however, contains many emigrants from European Russia. They are building many towns, cultivating wheat and other hardy crops, raising sheep and cattle, and mining gold and silver, and graphite for lead pencils in the east, and much iron ore in the Ural Mountains.

Tomsk and *Irkutsk*, two towns on the great railroad, are the principal cities of Siberia.

Russian Turkestan lies in the region of interior drainage. Its surface is a smooth lowland, broken in the south by many mountain spurs from the great highland. The winters are cold but the summers are hot, and there is little or no rain. In the valleys of the Ili, Syr, and Amu, and of smaller streams, where irrigation is possible, great quantities of wheat, rice, corn, tobacco, cotton, grapes, fruit, and raw silk are produced. But most of the people are herders, and they own millions of sheep, goats, cattle, camels, and horses. Most of the people are Tartars of the yellow race and are Mohammedans.

Tashkend, at the crossing of important caravan routes, is one of the largest cities in Asiatic Russia.

Khiva and **Bokhara**, though under native rulers, are controlled by Russia.

Transcaucasia is a mountainous country lying mostly on the great highland at an elevation of about one mile, though it is traversed by a broad valley draining to the Caspian Sea. The climate is much warmer and moister than in

Boats on the Amu River, Turkestan.

other parts of the Russian Empire, and there are extensive forests in the west. Wheat, tobacco, cotton, grapes, and tropical fruits are raised. The most valuable export is petroleum from the wells near *Baku*, which are among the richest in the world.

Transcaucasia is about as large as Nebraska, but it has five times as many people, and is the most densely settled part of Asiatic Russia. The people are about equally divided between the white and yellow races, but there are many more Mohammedans than Christians. *Tiflis* is the largest city in Asiatic Russia.

Arab Street Peddler.

Turkey in Asia. — Much of the Turkish Empire is mountainous and sterile, but the flood plain of the Tigris and Euphrates rivers is one of the most fertile regions in Asia. Many parts of the highlands are favorable to farming and herding, but owing to bad government most industries are in a backward condition.

The people include Jews, Armenians, Turks, and Arabs, as well as many Greek traders. The Turks are the ruling people, and are strict Mohammedans.

Mohammedan Family.

Smyrna is the largest city and an important center in the making of Turkish rugs. *Damascus* is one of the oldest cities of the world, and is noted for its silks. *Jerusalem* was the scene of many events in the life of Christ. *Mecca* is noted as the birthplace of Mohammed, and is visited each year by thousands of devout Mohammedans.

Arabia consists chiefly of a desert plateau with a few fertile spots.

In the southwest and southeast some of the land is well watered and fertile, and many dates and much fine Mocha coffee are grown. There the people live in villages, and are kind, hospitable, and often prosperous.

Arab Encampment, Arabia.

The plateaus are inhabited by wandering tribes of Arabs called *Bedouins.* These people live in tents, and count their wealth in sheep, goats, camels, and horses. Each tribe is governed by a sheik or chief.

Aden, which is controlled by the British, is an important seaport in the southeast.

Persians plowing by Hand.

Oman is the most flourishing state in Arabia. *Maskat* is its chief city.

Persia, like Arabia, is made up of desert plateaus. These are bordered by mountains. Some oases and many salt lakes and salt marshes dot the surface.

In the south it is exceedingly hot, while many parts of the plateaus have cold winters and hot summers. Rain rarely falls except on the high mountains, and the short streams soon disappear after leaving the mountains.

The Persians belong to the white race, but they have dark complexions and dark hair and eyes. They are noted for the silks, rugs, and fine shawls which they weave by hand. Tobacco, cotton, raw silk, and wool are the chief exports, and many pearls are obtained in the Persian Gulf.

Many of the people lead wandering lives and live in tents. In the towns and cities the houses of the rich are of stone, built around a court, in which are planted beautiful gardens or little groves of fruit trees. The houses of the poorer classes have mud walls and earthen floors. None of the houses have windows facing the streets. The people are Mohammedans.

The ruler of Persia is called the *Shah*, and the government is an absolute monarchy. Each of the wandering tribes is ruled by a sheik.

Teheran is the capital and chief city. *Tabriz* is noted for its vineyards and orchards.

Afghanistan is a mountainous country on the same plateau as Persia. The people belong to the white race, and are fierce and warlike. They are engaged chiefly in herding and trading, but some grain, fruits, and spices are cultivated.

Kabul, the capital, is situated in a lofty but fertile region.

Baluchistan is a barren country, but the wandering people find enough pasturage for flocks of camels, horses, sheep, and goats. The Khan is the ruler, but he is now subject to Great Britain.

The Chinese Empire, after Asiatic Russia, is the largest country in Asia. It is larger than all Europe, and contains about as many people.

In the north and west are many high mountains and desert plateaus. These parts contain few people. Along the east and southeast coasts are fertile plains drained by great rivers.

China contains two thirds of all the yellow people of the world. They have high cheek bones, and narrow, slanting eyes. Their dress consists of loose robes with wide sleeves, and wide trou-

Persian Hat Store.

sers. The uppers of their shoes are made of cotton or silk and the soles are of thick felt. The head is shaved in front, and the hair is worn in a thick queue behind.

The Chinese have many curious customs and ideas. The higher classes bandage the feet of their girls so as to prevent growth. They think small feet very beautiful, even though the feet are terribly deformed and can hardly be used for walking.

Carrying Baled Tea, China.

The people of China are noted for their show of politeness. The children are taught always to respect and obey their parents and to worship them after they are dead.

The Chinese are patient, industrious, and thrifty, as well as skillful in all kinds of handiwork. They were the first people to make beautiful chinaware and weave fine soft silks.

The Chinese eat very little, and their food consists chiefly of rice and fish. Forks and spoons are not used at their meals, but the food is conveyed to the mouth by wooden or ivory sticks, called "chopsticks."

Only the boys are sent to school in China. They learn to read and count and commit to memory the wise sayings of ancient Chinese writers. The Chinese language has no alphabet, and so each word is represented by a character. Thus it takes a long time to learn to read and write.

The Chinese are skillful farmers, and raise rice in the lowlands, tea on the hillsides, and the mulberry tree for the silkworm. In some parts millet is grown and used for food.

Besides the chinaware and silks, embroideries, lacquered wares, cotton goods, and articles of carved ivory are made. All the work is done by hand.

China has poor roads and few railroads. The rivers are used for travel and carriage of goods, and there are many miles of canals. Much trade is conducted by caravans, which cross both the plateau of Tibet and the desert of Gobi.

Peking is the capital of China. It contains many people, but its streets are narrow and filthy, and most of the houses are built of mud or sun-dried brick, with thatched roofs. *Canton* is a very large city. *Shanghai* ships much tea and rice.

Tibet, one of the countries belonging to the Chinese Empire, is a cold, dreary region with few inhabitants. *Lassa* is its capital and chief city.

Manchuria contains fertile valleys in which wheat and cattle are raised. It is largely under the control of Russia.

Street Scene, Peking.

STREET IN A KOREAN CITY.

Korea was for many years subject to the Chinese Empire, but its monarch is now largely under the control of Japan.

The country is a peninsula, and is traversed by low mountains which give it a varied surface with many fertile valleys.

The people resemble the Chinese. Like China, Korea has had little to do with foreign nations and people. It is often called the "Hermit Nation."

The Empire of Japan comprises a large number of islands east of the mainland of Asia.

The islands contain many mountains, among which are a number of active volcanoes and numerous hot springs. Earthquakes are frequent, and some of them have been so violent as to destroy buildings and cause the death of thousands of people. The climate is pleasant, except in the north, where it is cold and damp.

The Japanese resemble the Chinese, but are livelier, more energetic, and more progressive.

The Japanese build low one-storied houses of bamboo with sliding walls and partitions. Thus their houses can be thrown open during the day and closed at night and quickly divided into separate rooms.

WORKING IN RICE FIELD, JAPAN.

There are no chairs and bedsteads in their houses, for the people sit cross-legged on mats on the floor and sleep on blankets spread over the mats. Their pillows consist of little padded wooden stools.

The food of the common people consists chiefly of fish, rice, vegetables, and tea.

It is only recently that the Japanese have allowed foreigners to enter their country. Since doing so they have progressed faster than any other Asiatic people. They now have good schools and colleges, newspapers, and railways, telegraph and telephone lines, and many kinds of modern machinery.

On the lowlands they raise much rice.

BASKET SELLER, JAPAN.

A City on the Ganges.

They also raise silkworms and produce raw silk, and on the hill slopes they raise large quantities of tea. Many fruits and flowers are cultivated, and the Japanese are skillful gardeners.

Nearly all the manufacturing is still done by hand. The Japanese make beautiful carvings in wood and ivory, fine inlaid work, many bronzes and lacquered goods, and many articles of paper, such as fans, parasols, and lanterns.

Japan is a limited monarchy. The people elect many of their officers, and through them make their own laws.

Tokyo is the capital and largest city. It is about as large as Philadelphia. *Yokohama* is the chief seaport.

India is half as large as the United States, but contains nearly four times as many people.

On the north India is bordered by the lofty Himalaya Mountains. South of these are the plains of the Ganges and Indus rivers. Still farther south lies the plateau of Dekkan which is bordered by low mountains.

Moist southwest winds give India abundant rain for six months in summer. In winter dry winds blow over it from the north, causing a dry season.

India is the home of many large wild animals, of which the elephant is the largest and the tiger the fiercest. There are many kinds of monkeys and countless birds of beautiful plumage. The rivers abound in crocodiles, while among the land reptiles are the huge python and the deadly cobra. The elephant is trained to do many kinds of heavy work, and the zebu draws carts and plows.

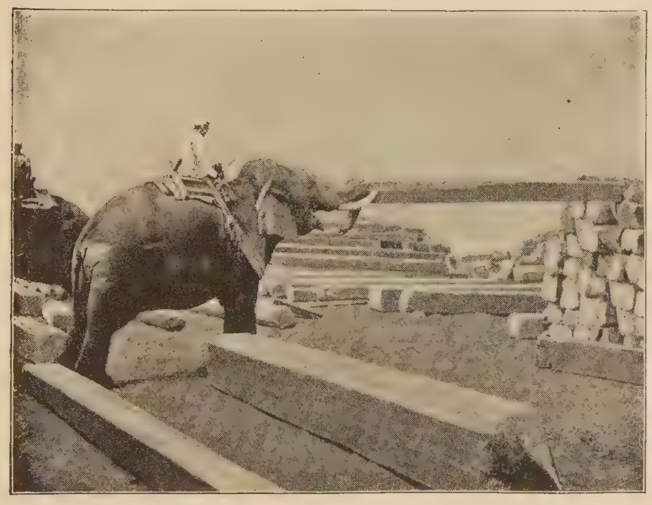
Most of the people of India are called *Hindus*. Although quite dark in color, they are thought to

Weaving, India.

Native Carriage, India.

have the same ancestors as the people of Europe, and are hence said to belong to the white race. They are much less civilized, however, than Europeans, and worship many gods whose favor they try to gain by bloody sacrifices and other cruel and debasing religious practices. Besides these, many of the people of India are Mohammedans.

The Hindus are divided into four classes or *castes*. The members of one caste can not mingle with those of another caste. The highest are priests, or Brahmans, and these men are highly educated.



Elephant Working.

The lowest castes are uneducated, and live in poor huts without floors or windows and with little furniture. Their chief food is rice, with an occasional piece of fish. Meat is never tasted, as nearly all animals are sacred and are never molested. Even the poisonous cobra is not disturbed.

India contains beautiful palaces, temples, and tombs, some of them relics of ancient empires.

Agriculture is the chief industry in India. Much of the land must be irrigated, and tanks for storing water and canals for this purpose have been constructed by the British. Rice and millet are grown as food for the people, and wheat, cotton, tea, and sugar cane are cultivated for export. The poppy for opium, the flax for its seed, and jute and raw silk are important products. Great famines sometimes occur when the rainfall is scant and crops fail.

Picking Tea, India.

The manufactures of the Hindus consist chiefly of fine shawls, carpets and rugs, silks, cottons, and fine jewelry.

Nearly all of India is ruled by Great Britain, as is also the neighboring island of Ceylon.

Calcutta is the capital and chief seaport.

Native Boats, Ceylon.

Burmese Judge and Attendants.

Bombay on the west coast and *Madras* on the east coast are also important ports.

A Burmese Temple.

Indo-China occupies the southeastern peninsula of Asia. Its climate, plants, and animals are quite similar to those of India.

The people belong mainly to the yellow race, but they differ much in different parts in color, habits, customs, and degree of civilization. In the south there are many Malays.

Indo-China includes several divisions or countries. In the west is **Burma**, which forms a part of British India. In the east are **Anam** and **Cambodia**, which belong to the French. Rice, sugar, tea, raw silk, and spices are the chief products of French Indo-China. **Siam** is an independent state in the center of Indo-China. It is noted for its forests of teak, and its precious stones and minerals. The chief crop grown is rice. *Bangkok* is the capital of Siam.

The Malay peninsula contains a British colony called the **Straits Settlements**. Spices and tin are the chief products. *Singapore*, on an island in the Strait of Malacca, is a great stopping point for vessels passing around southern Asia. It ships large quantities of tin to Europe.

The East Indies (map p. 123) lie off the coast of Indo-China. They comprise Java, Sumatra, Borneo, Celebes, the Philippines, and some other islands. The climate resembles that of the mainland, except that it is moister.

These islands are rich in spice plants as well as bamboo, rattan, and gum plants. Sugar, coffee, tobacco, spices, and especially tin are the chief products.

The native people are Malays, of whom those of Java are the most intelligent and skillful workmen. Many Chinese have entered these islands and they are the chief farmers.

Java is the richest and most populous of these islands. Borneo is the largest island. Banca, a small island, is noted for its extensive tin mines. Most of the islands belong to

Cambodian Female Band.

the Dutch. *Batavia* is the chief city of the Dutch East Indies, and ships much coffee.

The Philippines now belong to the United States. Like other islands of the East Indies, they are mountainous and volcanic islands with frequent earthquakes. Near the coast there are many low, fertile plains.

Huts and Carts, Siam.

The Philippines are inhabited chiefly by Christianized peoples of Malayan origin; but in the interior of some of the islands are found dwarfish people called *Negritos*. These are little better than savages.

The chief grain grown is rice, which forms the food of the people. Sugar and Manila hemp are produced and exported. The forests contain valuable woods, and some of the islands have rich mineral deposits.

Manila is the chief city and seaport.

TEST EXERCISES FOR REVIEW

Where is Asia? How does it compare with Europe in size? with North America? By what lands and oceans is it bordered? Describe the coast line and adjacent islands. Describe the great highland of Asia. What and where are the chief mountain chains? Where are the lowlands of Asia? Describe the chief rivers of the northern slope; of the eastern slope; of the southern. Describe some rivers of the interior basin; some lakes.

Describe the climate of Asia. Where are the moist regions? the dry regions? Describe the five great vegetation belts. Mention some animals found in the different parts of Asia. Mention the characteristic productions. What is said of the population of Asia? Where is Asia most densely peopled? What races live in Asia? Where does each race live?

Where is Asiatic Russia? What does it embrace? Is it sparsely or densely peopled? Why? Describe the surface and drainage of Siberia; the occupations of the people. What are the chief towns? Locate and describe Russian Turkestan. Describe its people and productions. Describe Transcaucasia; its chief towns.

Locate and describe Turkey in Asia and its chief towns. Describe Arabia and its people; Persia and the Persians; Afghanistan; Baluchistan.

Where is the Chinese Empire? What great rivers water it? Describe its surface; its people, their customs, and productions. Name the chief cities. Describe Tibet, Manchuria.

Describe Korea.

Where is Japan? Describe the islands, the people, their customs, and productions. What is the capital? Name the chief seaport.

Where is India? Describe its surface, drainage, climate, plants, animals, people, and its productions. What are the chief cities?

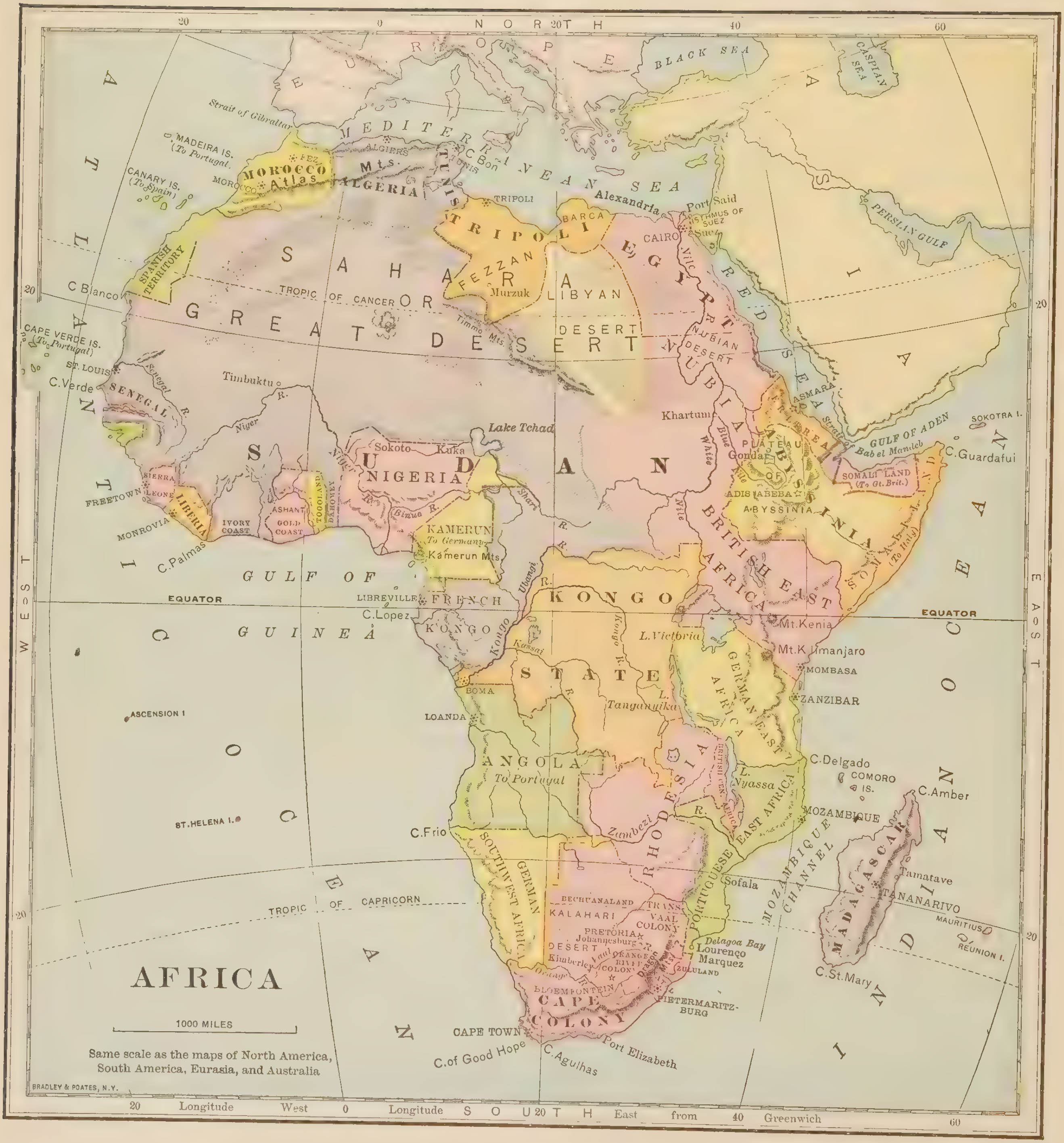
Describe the countries of Indo-China, and name and locate the chief cities.

Mention and locate some islands of the East Indies. Describe these islands, the people, the productions.

Describe the Philippines. To what nation do they belong? What are the chief products? What is the chief city?

Packing Sugar, Philippine Islands.

Mohammedan Chiefs, Philippine Islands.


AFRICA
1000 MILES
Same scale as the maps of North America, South America, Eurasia, and Australia
BRADLEY & POATES, N.Y.
NORTH
SOUTH
WEST
EAST
Longitude West
Longitude East from Greenwich
20
0
20
40
60
EUROPE
BLACK SEA
CASPIAN SEA
ASIA
PERSIAN GULF
MEDITERRANEAN SEA
Strait of Gibraltar
MADEIRA IS. (To Portugal)
CANARY IS. (To Spain)
MOROCCO
FEZ
Atlas Mts.
ALGIERS
ALGERIA
TUNIS
C. Bon
TRIPOLI
BARCA
FEZZAN
Murzuk
Alexandria
Port Said
ISTHMUS OF SUEZ
Suez
CAIRO
EGYPT
LIBYAN DESERT
NUBIAN DESERT
NUBIA
RED SEA
SPANISH TERRITORY
C. Blanco
SAHARA OR GREAT DESERT
TROPIC OF CANCER
Timmo Mts.
CAPE VERDE IS. (To Portugal)
ST. LOUIS
C. Verde
SENEGAL
Senegal R.
Timbuktu
Niger R.
SIERRA LEONE
FREETOWN
LIBERIA
MONROVIA
C. Palmas
IVORY COAST
ASHANTI
GOLD COAST
TOGOLAND
DAHOMEY
Sokoto
Kuka
Lake Tchad
NIGERIA
Binue R.
SUDAN
Shari R.
Khartum
White Nile
Blue Nile
ASMARA
ERITREA
Strait of Bab el Mandeb
GULF OF ADEN
SOKOTRA I.
C. Guardafui
SOMALI LAND (To Gt. Brit.)
PLATEAU OF ABYSSINIA
Gondar
ADIS ABEBA
ABYSSINIA
SOMALILAND (To Italy)
BRITISH EAST AFRICA
KAMERUN (To Germany)
Kamerun Mts.
Ubangi R.
GULF OF GUINEA
EQUATOR
LIBREVILLE
FRENCH KONGO
C. Lopez
Kongo R.
KONGO STATE
Kassai R.
L. Victoria
Mt. Kenia
Mt. Kilimanjaro
MOMBASA
ZANZIBAR
GERMAN EAST AFRICA
L. Tanganyika
BOMA
LOANDA
ANGOLA To Portugal
RHODESIA
BRITISH CEN. AFRICA
L. Nyassa
C. Delgado
COMORO IS.
C. Amber
MOZAMBIQUE
MOZAMBIQUE CHANNEL
PORTUGUESE EAST AFRICA
Zambezi R.
C. Frio
GERMAN SOUTHWEST AFRICA
BECHUANALAND
KALAHARI DESERT
TRANSVAAL COLONY
PRETORIA
Johannesburg
Vaal R.
ORANGE RIVER COLONY
Kimberley
Orange R.
Sofala
Delagoa Bay
Lourenço Marquez
ZULULAND
NATAL
BLOEMFONTEIN
CAPE COLONY
PIETERMARITZBURG
CAPE TOWN
C. of Good Hope
C. Agulhas
Port Elizabeth
MADAGASCAR
Tamatave
TANANARIVO
C. St. Mary
MAURITIUS I.
REUNION I.
TROPIC OF CAPRICORN
ASCENSION I.
ST. HELENA I.
ATLANTIC OCEAN
INDIAN OCEAN

AFRICA

EXERCISES ON THE MAP

Position. — In what direction is Africa from Asia? In what direction is it from Europe? By laying a tracing of North America on the map of Africa compare them in size. What sea and strait are north of Africa? What bodies of water are east? What ocean and gulf are west? What isthmus joins Africa to Asia? What circles cross Africa? In what zone is northern Africa? central Africa? southern Africa?

Coast Line. — What is the shape of Africa? Is the coast line regular or irregular? What bay and gulfs indent the coast? What groups of islands are off the northwest coast? What large island is southeast of the mainland of Africa? Find two capes on the coast of Africa.

Surface. — What mountains are near the southern end of Africa? What high peaks are near the equator? What highland is near the Red Sea? What mountains are in northwestern Africa? Where are the Timmo Mountains?

Drainage. — Name the river flowing northward into the Mediterranean Sea; the one which flows westward into the Atlantic. What river flows into Mozambique Channel? What lake is drained by each of these three rivers? What river flows into the Gulf of Guinea? Describe the river. What river is near the southern end of Africa? Into what does it flow? Find two deserts in Africa.

Countries. — In what country is the lower part of the Nile River? Name and locate the capital of Egypt; another large city. What places are at the ends of the Suez Canal?

What countries besides Egypt border on the Mediterranean? Name and locate the capital of each.

Mt. Tenerife, Canary Islands.

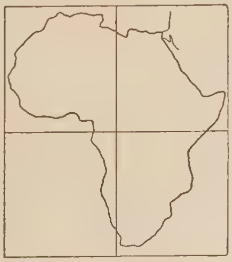
What region lies south of these countries? What region is south of the Sahara? What lake is in central Sudan? What small countries are near Cape Verde? Name the capital of Senegal; of Sierra Leone; of Liberia. What divisions border the north coast of the Gulf of Guinea?

Where is the Kongo State? Name some other divisions in central Africa. To whom do they belong? What city is on an island in east central Africa?

What colony is at the southern extremity of Africa? Name the capital; two capes. Name some of the divisions in south Africa north of Cape Colony. Find Johannesburg; Kimberley.

What is the capital of Madagascar?

Map Drawing. — Sketch and resketch an outline of Africa like this figure, but larger, until you can reproduce its shape quickly from memory.



DESCRIPTION

Position and Size. — Africa lies southwest of Asia, with which it is connected by the Isthmus of Suez. It is separated from Europe by the Mediterranean Sea and the Strait of Gibraltar. Africa is the second of the grand divisions in size and the third in population.

Coast Line. — In shape and coast line Africa is somewhat like South America. The coast is regular, with few bays, gulfs, and capes. Like South America, too, Africa has few islands off its coast. The Cape Verde, Canary, and Madeira islands are volcanic groups off the northwest coast. The Canary Islands are noted for the high volcanic peak Tenerife. The large island of Madagascar and a few small islands are off the southeast and northeast coasts.

Relief. — Southern and central Africa is almost wholly a plateau with a narrow rim of mountains near the coast. Northern Africa is chiefly lowland. The Abyssinian highland is a large and lofty plateau in eastern Africa.

The highest mountains are situated near the eastern border, and two peaks, Mounts Kenia and Kilimanjaro, near the equator, are the only snow-capped mountains of the grand division. The Atlas Mountains border the lowland on the northwest and are the most continuous mountain chain. Dragon Mountains form the rim of the plateau in southern Africa.

From the mountain rim of the plateau the land slopes abruptly toward the coast, forming only a narrow coast plain.

Drainage. — Africa is drained chiefly by five important rivers. Two of these, the Kongo and the Nile, have their sources in the eastern highland near the equator.

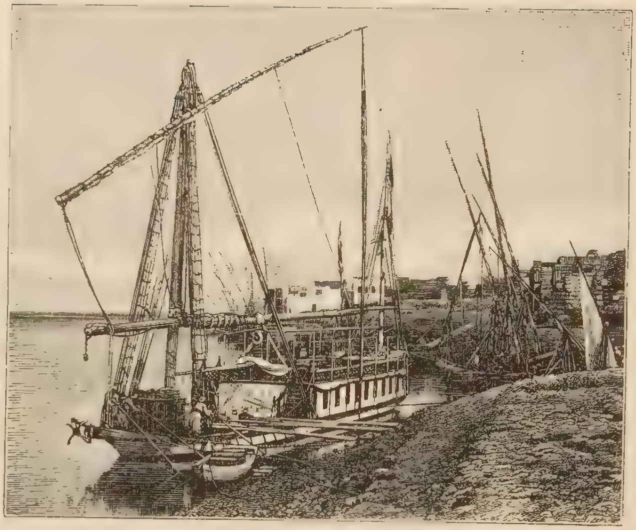
The Nile, which is surpassed only by the Mississippi-Missouri in length, flows northward into the Mediterranean. In its course it moistens a narrow valley through the arid region, and thus makes the land fertile.

The other important rivers of Africa are the Niger, which drains western Sudan, the Zambezi in south central Africa, and the Orange in south Africa.

All these rivers have rapids or falls where they flow from the plateau to the coast plains.

Africa has many large lakes in the eastern highlands near the equator. One of these, Lake Victoria, is larger than Lake Superior. Tanganyika and Nyassa are long, narrow lakes farther south. Lake Tchad, near the border of the Sahara, has no permanent outlet, and is scarcely more than a marsh during the dry season.

Climate. — The central part of Africa lies in the Torrid Zone where the climate is usually hot and moist. The highlands in this region, on account of their elevation, are quite pleasant and healthful. Near the equator there are two rainy seasons, and the lands are covered with dense forests, almost rivaling the silvas of the Amazon.



Scene on the Nile.

In the Sudan there is but one rainy season, and much of that region consists of grassy lands like our prairies.

Near the tropics there is scarcely any rainfall, and much of the land is consequently a desert with little or no vegetation except in regions called *Oases.*

Plants. — Owing to the differences of heat and moisture, many kinds of plants flourish in Africa. Near the deserts are several kinds of acacias which produce gums like gum arabic. A tree in eastern Africa produces gum copal, which is used for making varnish. Many palms abound, one of which, the date palm, furnishes dates, and another, the oil palm, bears nuts whose kernels are used in making fine soaps. Abyssinia is the home of the coffee tree, and many valuable woods and drugs abound in the central forests.

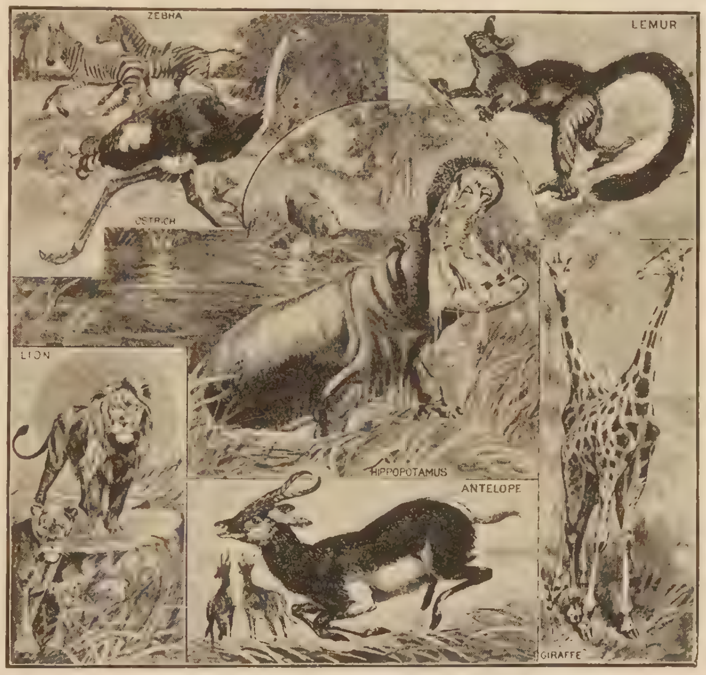
Animals. — Africa also contains many kinds of animals. There are animals somewhat resembling man, as the gorilla, the chimpanzee, and baboon. These live in the forests and feed upon fruits and nuts. Many of the animals of Africa are fierce, as the lion, leopard, and hyena.

On the grassy lands are found many animals with hoofs. Some of these are the zebra, antelopes, the gnu or horned horse, the giraffe, the Cape buffalo, and wild cattle.

The rhinoceros lives in the forest, and the river-horse or hippopotamus lives in the rivers. The elephant is abundant in the forests, and both it and the hippopotamus are hunted for the ivory of their tusks or teeth.

The rivers swarm with crocodiles, and there are many snakes, among which is the poisonous asp.

The ostrich, the largest bird in the world, is found wild on the deserts. It cannot fly, but can run faster than a horse. Many ostriches are now raised on ostrich farms for their fine feathers.



Some Animals of Africa.

People. — Africa ranks next to Asia in size, but contains only one fifth as many people. In the north it is inhabited by Berbers, wandering Arabs, Moors, and Egyptians, all of whom belong to the white race. Some of these people are civilized, but many of the Berbers and Arabs are barbarous herdsmen who are often fierce and treacherous. Most of the people of North Africa believe in the Mohammedan religion.

South of the Sahara, Africa is the home of the black race. These people are called *Negroes*, and live in tribes. Some of them are large and strong, while others are not larger than dwarfs, and are called *Pygmies*. None of the negro tribes are civilized.

Many of the negro tribes live in villages of low huts. The huts are dome-shaped, built of bent poles thatched with reeds, bark, or grass. The huts contain no articles except a few mats upon which the people sleep, some baskets, earthen pots, and spears and other weapons.

The negroes raise some poultry, goats, and cattle, and plant fields of millet, bananas, and manioc. Some tribes count their wealth in the number of cattle they own, while others are skillful in weaving cloth, making baskets, and plaiting mats.

Still other tribes live almost entirely upon the wild fruits and herbs which they find in the forests and upon the wild game which they capture. They often kill and eat other negroes, and are therefore cannibals.

For many years negroes were torn away from their families and sold as slaves. Slavery no longer exists in America and most European countries, but natives are still captured by slave traders and sent as slaves to some parts of Asia and to Turkey in Europe. Many native tribes are constantly at war with each other, and the captives taken in war are either held or sold as slaves. The slave trade, however, is rapidly decreasing.

Little was known by Europeans about central and southern Africa until recent times. But now several European countries are making settlements along the coast, and have gained control of most of the interior.

Industries. — In northern Africa the industries are similar to those of the Mediterranean countries of Europe. But in the drier regions near the deserts and on the grassy plateaus of south Africa the herding of cattle,

CAIRO, EGYPT.

sheep, goats, and horses forms the chief pursuit of the people. Camels also are raised in the north.

Africa is rich in such natural products as ivory, gold dust, ostrich feathers, palm nuts, and gums.

Though the soil is tilled to a small extent by the negroes, yet agriculture is important only in the Nile valley and delta.

Egypt is the most important and thickly peopled country of Africa. It is a sandy desert except in the narrow fertile valley of the Nile. Even in this valley rain rarely falls, and the land is watered by irrigation.

The rains of central Africa cause the flooding of the Nile every summer. Great quantities of fine mud are brought down the river and spread over the flood plains. As the waters subside, the mud is left as a thin coat of soil which yields abundant harvests of cotton, rice, sugar cane, and wheat.

Some of the people of Egypt belong to the white race, and are descendants of the ancient Egyptians, who built great temples and the pyramids, and made mummies of their dead. Most of the people are of mixed Arab and negro blood, and are Mohammedans.

Egypt pays tribute to Turkey, but is really controlled by Great Britain.

Cairo is the capital. Near it are the pyramids. *Alexandria* is the chief seaport. *Suez* and *Port Said* are at the ends of the Suez Canal, which joins the Red and Mediterranean seas.

Morocco, the most northwestern state of Africa, takes its name from the Moors who are its chief inhabitants. These people were once prosperous and progressive, but are now poor, and are often cruelly treated by their ruler or sultan.

Rude farming, herding, and the manufacture of leather are the chief pursuits.

Fez and *Morocco* are the chief towns.

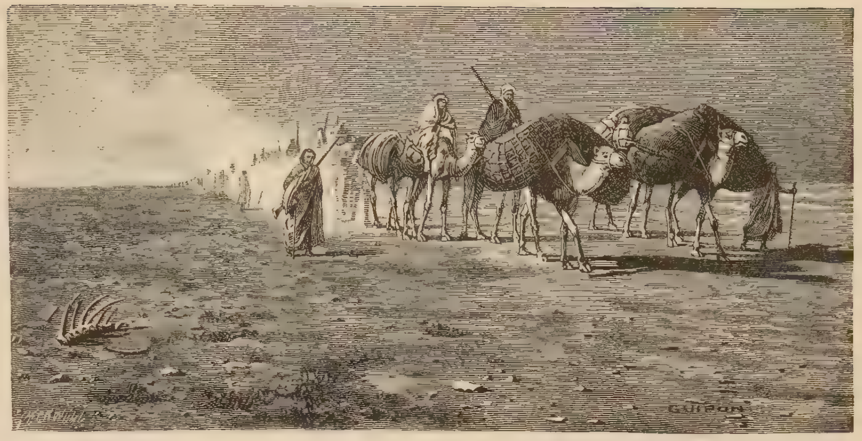
Algeria and **Tunis** belong to France, and are like Morocco in surface, climate, and people.

Much of the best land is held by foreigners, and wheat, barley, millet, esparto grass for paper making, and olives, dates, and live stock are the chief products.

Algiers is the capital and chief seaport of Algeria, and *Tunis* of Tunis.

Tripoli is a Turkish province, and is poorly governed. Most of the land is desert. The caravan trade in gold and slaves, and the sponge fisheries, are the chief employments of the people.

MOORISH MAN AND WOMAN.



Caravan on the Sahara.

Tripoli is the capital and chief seaport.

Morocco, Algeria, Tunis, and Tripoli are sometimes spoken of as "the Barbary States."

The Sahara is the most extensive desert in the world, yet not all of it is an arid waste. In some parts springs bubble forth, or the ground water comes so close to the surface that grass, date palms, peaches, and grapes flourish. Caravans, in crossing the desert, find in these oases both food and water.

The inhabitants are chiefly Arab traders, but there are also fierce Arab tribes who often plunder the caravans.

Central Africa. — The chief divisions of central Africa are Sudan, Kongo State, and Abyssinia.

Abyssinia in northeastern Africa is mainly a rugged highland country with abundant rainfall. It is inhabited by rude tribes of white people who claim to be Christians. Coffee grows wild, gums and valuable woods abound, and ivory, wax, and gold are exported.

Government Station, Kongo State.

Sudan lies south of the Sahara. It is a fertile prairie country in the north and forest-covered in the south, where the rainfall is greater.

The people are blacks, but include the most advanced negro tribes of Africa. They cultivate the soil, raise cattle and goats, and manufacture cotton cloth, leather, and mats. Each tribe is governed by a king, but all the Sudan is now claimed by European nations.

The chief products are ivory, gold dust, ostrich plumes, palm oil and nuts, and gums and rubber. *Timbuktu* is a trade center.

Kongo State includes most of the Kongo basin. Its climate is hot and moist, but generally healthful. Much of the surface is covered with dense forests, rich in valuable woods and rubber-producing trees.

It is inhabited by negro tribes who are ignorant and believe in witchcraft, and the eastern part is the home of the pygmies.

Some trade is conducted by way of the rivers, but ivory, hides, and rubber are carried to the coast by the natives on their shoulders or heads.

The king of the Belgians controls this state, and the trade is chiefly with Belgium and the Netherlands.

Coast Countries. — The coast countries of Africa in the Torrid Zone are hot, moist, and

Native Huts, South Africa.

very unhealthful to white people. The west coast is rich in gold, and the forests of both coasts yield gum copal, rubber, kola nuts, and palm nuts. Coffee, sugar cane, tobacco, earthnuts or peanuts, and cotton are grown by the negro inhabitants.

Various European nations now control these coasts. **Sierra Leone**, a colony established by Great Britain, and **Liberia**, established by the United States, but now an independent republic, are occupied by freed slaves and their descendants.

Madagascar, a large island off the southeast coast, is naturally rich in products, which are like those of the adjacent mainland.

It is inhabited on the east side by Malays, and on the west by negroes. The Malays are partly civilized and formerly ruled the island. It is now a French colony.

Tananarivo is the capital.

South Africa is mainly a highland region, including mountain ranges and broad plateaus called the *Veldt.* The narrow coast plain in the east is moist and forest-clad, but west of the Dragon Mountains most of the land is covered with a sparse growth of grass, except in the desert of Kalahari.

South Africa contains the richest diamond and gold mines of the world. Herding is an important occupation, and sheep, cattle, and ostriches are raised in great numbers.

The British own most of south Africa, but many of the inhabitants are Dutch farmers called *Boers.* The native negroes have been pushed back toward the interior or they serve as laborers for the English and Boers.

Cape Colony is the most important division, and *Cape Town*, the capital of Cape Colony, is the largest seaport. *Kimberley* is the center of diamond mining, and *Johannesburg* of gold production.

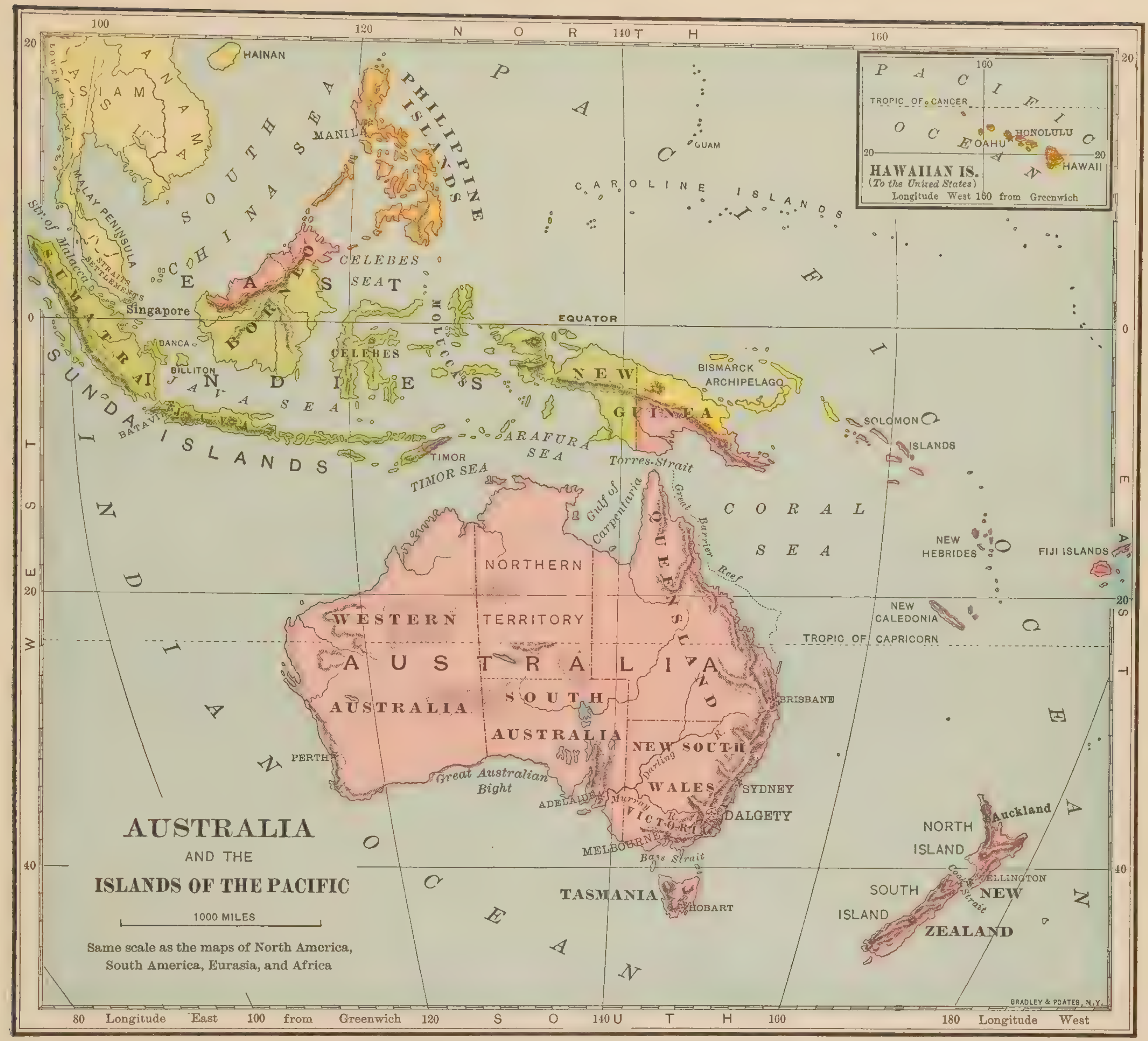
TEST EXERCISES FOR REVIEW

Where is Africa? By what waters is it bordered? How does it compare in size with North America and the other grand divisions? Describe its coast line and islands. Describe the general surface. Locate two mountain ranges; two high peaks; a high plateau. Name and describe the five great rivers of Africa. What can you tell of the lakes of Africa?

Describe the climate. Where are the rainless regions? What is the character of the surface in these regions? Describe the vegetation of Africa. What animals are found? What races inhabit Africa? Where is each race found? Describe the manner of life of the negroes. What are the characteristic industries and products of Africa?

Where is Egypt? Describe the country, people, and products. Characterize the chief towns. Locate and describe each of the countries bordering on the Mediterranean, west of Egypt, and tell about its people, products, and chief towns. Describe the Sahara, Abyssinia, the Sudan, Kongo State, the coast countries of central Africa, Madagascar. Describe south Africa. What is the most important division of south Africa? Characterize the chief towns.

Sorting Diamonds, Kimberley.


AUSTRALIA
AND THE
ISLANDS OF THE PACIFIC
1000 MILES
Same scale as the maps of North America, South America, Eurasia, and Africa
HAWAIIAN IS.
(To the United States)
Longitude West 160 from Greenwich
TROPIC OF CANCER
PACIFIC OCEAN
OAHU
HONOLULU
HAWAII
NORTH PACIFIC OCEAN
HAINAN
SIAM
ANAM
LOWER BURMA
MALAY PENINSULA
STRAITS SETTLEMENTS
Str. of Malacca
Singapore
SOUTH CHINA SEA
MANILA
PHILIPPINE ISLANDS
GUAM
CAROLINE ISLANDS
CELEBES SEA
BORNEO
SUMATRA
BANCA
BILLITON
CELEBES
MOLUCCAS
EAST INDIES
JAVA SEA
JAVA
BATAVIA
SUNDA ISLANDS
TIMOR
TIMOR SEA
ARAFURA SEA
EQUATOR
NEW GUINEA
BISMARCK ARCHIPELAGO
SOLOMON ISLANDS
Torres Strait
Gulf of Carpentaria
Great Barrier Reef
CORAL SEA
NEW HEBRIDES
FIJI ISLANDS
NEW CALEDONIA
TROPIC OF CAPRICORN
AUSTRALIA
WESTERN AUSTRALIA
NORTHERN TERRITORY
SOUTH AUSTRALIA
QUEENSLAND
NEW SOUTH WALES
VICTORIA
BRISBANE
SYDNEY
DALGETY
Darling R.
Murray R.
ADELAIDE
MELBOURNE
PERTH
Great Australian Bight
Bass Strait
TASMANIA
HOBART
NEW ZEALAND
NORTH ISLAND
SOUTH ISLAND
Auckland
WELLINGTON
Cook Strait
INDIAN OCEAN
SOUTH PACIFIC OCEAN
WEST
EAST
SOUTH
80 Longitude East 100 from Greenwich 120
140
160
180 Longitude West
BRADLEY & POATES, N.Y.

AUSTRALIA AND THE ISLANDS OF THE PACIFIC

EXERCISES ON THE MAP

Position and Coast. — In what direction from Asia is Australia? What ocean is east of Australia? What ocean is south and west? What seas are north? What gulf is on the north coast? What sea is northeast? What strait is north? What bight and strait are south?

What coral formation lies off the coast of Australia? In what sea is it? Using the scale of miles, find how far it extends.

What island is south of Australia? What large island is north? What group of islands is southeast? Name the two islands in the group. What strait separates them? What islands in the Pacific Ocean are northeast of Australia?

Are Australia and the islands of the Pacific mostly north or south of the equator? What tropic crosses Australia? In what zones is Australia? In what zone is New Guinea? New Zealand?

Surface and Drainage. — What part of Australia has mountains? What two rivers flow westward from these mountains? Are there many streams in central Australia? Are New Zealand, Tasmania, and New Guinea level or mountainous?

Divisions. — Name all the divisions of Australia. What division is in the northeast? What two are in the southeast? What one is in the central part? What one is in the west? What territory in the north belongs to South Australia?

Map Drawing. — Sketch and resketch an outline of Australia like this figure, but larger, until you can reproduce its shape quickly from memory.

DESCRIPTION

Australia; Position and Size. — Australia is situated southeast of Asia and is the only continent wholly south of the equator. It is nearly as large as the United States, but contains only a sparse population.

Shape and Coast. — The shape of Australia is somewhat oblong, but its length from east to west is little greater than its width from north to south. The coast line is regular, and there are no deep indentations except the Gulf of Carpentaria in the north.

Surface. — Most of Australia is a low plateau, traversed by a range of mountains near the eastern coast. In the southeast the mountains are separated from the interior plateau by a broad fertile plain. In the center and west are several low mountain ranges.

Eucalyptus Forest, Australia.

Climate. — The northern half of Australia lies in the Torrid Zone, and along the northern coast the climate is moist and hot, while the interior is dry and hot.

The moist winds from the Pacific Ocean blow over much of the eastern part, and their moisture is dropped on the eastern highlands. West of the mountains little rain falls, except at long intervals, and thus central Australia is arid like the Sahara.

Gold Mine, Australia.

The pleasantest part of Australia is in the southeast, where the climate is temperate and the rainfall most certain.

Rivers and Lakes. — Australia has comparatively few permanent streams. The chief rivers are the Murray and the Darling, which drain the lowlands in the southeast. Short, rapid streams drain the steep slope in the east, and the streams of the interior are sudden torrents which soon dry up. The lakes are shallow salt marshes, some of which become entirely dry during long droughts.

Vegetation. — The moist region in the north is covered with dense tropical forests of valuable woods, while the eastern coast has forests more like those of the Temperate Zone. Some parts of the interior are grassy regions, but most of it is covered with thorny acacias and prickly plants.

The plants of Australia are very curious. Some of them have no leaves, while others have several kinds of leaves on the same tree. Some have scale-like leaves and bear beautiful flowers; others shed their bark; and others have leaves turned edgewise to the sun, so that they cast little shade. There are forests of Eucalyptus or gum trees which sometimes grow to the height of four hundred feet in twenty years, and are the tallest trees in the world.

Animals. — The animals of this continent are different from those of the rest of the world. Some four-footed animals, as the duck mole and porcupine ant-eater, build nests and lay eggs almost like birds.. Both of these burrow in the ground and feed upon insects.

There are also many animals that carry their young in a pouch of skin on the mother's breast. The most noted of these are the kangaroos, of which there are many kinds.

GEYSER TERRACE, NEW ZEALAND.

Australia has birds of beautiful plumage and strange habits. The lyre bird is noted for its beautiful lyre-shaped tail; the bower birds build playhouses and decorate them with bright shells and flowers; and the bell-bird has a note like the tone of a silver bell.

People. — The natives of Australia belong to the black race. They are ignorant and degraded, and are now rapidly dying out. When first visited by white men they knew nothing about the bow and arrow, and their chief weapon was a peculiar throwing-stick, called a "boomerang."

The first settlements made in Australia were composed of convicts sent from England. But after a while the English discovered the good grazing lands of the country, and colonists came to engage in sheep raising. Australia is now famous as the greatest wool-producing region of the world. The gold mines are among the most productive in the world, and these also have attracted colonists. Most of the people are of British descent, but there are also some Chinese, Malays, and Hindus. The people have good schools and colleges, and are very progressive.

Industries. — The chief occupations are herding sheep and cattle, mining gold and tin, preserving meats, and exporting wool, hides, tallow, gold, tin, and fresh and preserved meats. Wheat is grown and flour is manufactured in the south, fruits are cultivated in the east, and some lumber is cut.

Divisions. — Australia comprises the states of Victoria, New South Wales, Queensland, South Australia, and West Australia. These, together with Tasmania, form the Australian Commonwealth, which makes its own laws but belongs to Great Britain.

Victoria, the smallest state, is the most populous. It is one of the chief gold-producing regions of the world. Queensland is noted for its tin mines, and New South Wales contains the largest sheep and cattle ranches.

Melbourne, the capital of Victoria, and *Sydney*, the capital of New South Wales, are the largest cities and chief seaports of Australia.

Tasmania is a mountainous island south of Australia. Its fertile valleys are used for sheep farms and fruit farms. Tin is mined, and both wool and tin are exported.

INTERIOR OF SAMOAN HOUSE.

New Zealand comprises a group of islands lying over a thousand miles southeast of Australia. It contains active volcanoes, geysers, and hot springs like those in the Yellowstone Park, and glaciers like those of the Alps. Most of the plants are peculiar to the islands. Sheep raising is the chief industry, and wool and meats are exported.

The native people, called *Maoris*, are Malays and have brown complexions. The chief people are the English, and the islands form a British colony. *Auckland* is the chief seaport, and *Wellington* is the capital.

The Fiji Islands also form a British colony. They are a group of volcanic islands with large plantations of sugar cane, fruit plants, and cocoanut palms. The natives are Malays, who were once cannibals but are now somewhat civilized.

SCENE IN THE FIJI ISLANDS.

New Guinea and many of the other islands north of Australia are owned by the Dutch, Germans, and British. Some of the natives resemble those of Australia, but others are Malays. There are few white people in the islands.

Many of the islands of the Pacific are of volcanic or coral formation. Volcanic islands are usually high near the center, with a rough slope toward the coast, but coral islands are low and level. Some coral islands are rings of coral surrounding a lagoon of water.

The Hawaiian Islands are situated southwest of San Francisco, near the Tropic of Cancer. They comprise eight volcanic islands, one of which contains the great volcano, Mauna Loa. These islands now form a territory of the United States, though most of the people are Malay natives, Japanese, Chinese, and Portuguese. These people work on the sugar-cane plantations, which are owned chiefly by Americans. *Honolulu* is the capital and chief port.

Guam, **Wake**, and **Tutuila**, one of the Samoa Islands (maps pp. 12, 13), also belong to the United States.

TEST EXERCISES FOR REVIEW

Where is Australia? By what waters is it bordered? What islands are near its coast? Describe its surface, climate, and drainage; the peculiarities of its vegetable and animal life. How does Australia compare with the United States in size and population? Describe the people and chief products; the divisions and chief towns. Describe Tasmania, New Zealand, the Fiji Islands, New Guinea, the Hawaiian Islands.

SIZE AND POPULATION

SUMMARY.

Length of the earth's axis	(miles)	7,900
Length of the equator	"	24,900
Earth's Surface	(sq. miles)	**196,900,000**
Pacific Ocean	" "	71,000,000
Atlantic Ocean	" "	34,000,000
Indian Ocean	" "	28,000,000
Antarctic Ocean	" "	7,500,000
Arctic Ocean	" "	4,000,000
The Sea	" "	**144,500,000**

	Area in Sq. Miles.	Population.
Asia	17,056,000	906,674,000
Africa	11,512,000	140,274,000
North America	9,430,000	105,806,000
South America	6,856,000	38,482,000
Europe	3,842,000	396,406,000
Australia, etc.	3,710,000	6,458,000
The Land	**52,406,000**	**1,594,100,000**

ASIA.

Russia in Asia	6,672,000	21,215,000
Chinese Empire	4,301,000	426,131,000
Japanese Empire	161,000	46,495,000
Korea	84,000	9,670,000
British India, etc	1,918,000	300,164,000
Other British Possessions	20,000	991,000
Nepal, Bhutan	73,000	3,200,000
Portuguese India, etc.	2,000	651,000
Siam	245,000	6,320,000
Fr. Indo-China, etc.	256,000	15,922,000
Afghanistan	241,000	4,550,000
Persia	635,000	9,000,000
Turkey in Asia	706,000	17,178,000
Arabia	955,000	1,950,000
East Indies	787,000	43,237,000
Total	17,056,000	906,674,000

AFRICA.

Morocco	176,000	7,000,000
Algeria	344,000	4,802,000
Tunis	65,000	1,800,000
Tripoli	406,000	1,000,000
Egypt	248,000	9,717,000
Abyssinia	312,000	8,330,000
Eritrea	42,000	331,000
British E. Africa	433,000	4,908,000
Somaliland, etc.	214,000	603.000
Sahara	2,461,000	791,000
Sudan	2,972,000	57,675,000
Kongo State	927,000	19,000,000
Angola	491,000	3,840,000
Port. E. Africa	296,000	2,300,000
Ger. E. Africa	374,000	6,855,000
Ger. S. W. Africa	318,000	210,000
Transvaal Colony	114,000	1,050,000
Orange River Col.	48,000	210,000
Cape Colony	277,000	2,502,000
Rhodesia	408,000	1,214,000
Other Br. S. Africa	348,000	2,089,000
African Islands	238,000	4,047,000
Total	11,512,000	140,274,000

NORTH AMERICA.

	Area in Sq. Miles.	Population.
Greenl'd and Icel'd	877,000	91.000
British America	3,806,000	5,600,000
United States	3,091,000	75,995,000
Alaska	591,000	64,000
Mexico	767,000	13,606,000
Central America	206,000	4,136,000
West Indies	92,000	6,314,000
Total	9,430,000	105,806,000

SOUTH AMERICA.

Colombia	466,000	3,917,000
Venezuela	364,000	2,445,000
Guiana, Brit.	95,000	296,000
Guiana, Dutch	50,000	87,000
Guiana, French	30,000	32,000
Brazil	3,301,000	14,334,000
Ecuador (incl. Galapagos Islands)	119,000	1,272,000
Peru	439,000	4,586,000
Bolivia	442,000	1,766,000
Chile	293,000	3,174,000
Argentina	1,083,000	4,957,000
Paraguay	98,000	636,000
Uruguay	69,000	978,000
Islands	7,000	2,000
Total	6,856,000	38,482,000

EUROPE.

British Possessions	122,000	41,823,000
France	207,000	38,983,000
Spain	192,000	18,235,000
Portugal	35,000	5,430,000
Belgium	11,000	6,694,000
Netherlands	13,000	5,104,000
Denmark	15,000	2,465,000
German Empire	211,000	56,604,000
Switzerland	16,000	3,325,000
Austria-Hungary	261,000	47,153,000
Italy	111,000	32,486,000
Sweden	173,000	5,136,000
Norway	124,000	2,222,000
Russia in Europe	2,113,000	109,726,000
Turkey in Europe	65,000	5,897,000
Bulgaria	37,000	3,744,000
Crete	3,000	310,000
Roumania	51,000	5,913,000
Servia	19,000	2,494,000
Montenegro	4,000	228,000
Greece and islands	25,000	2,434,000
Spitzbergen, etc.	34,000	
Total	3,842,000	396,406,000

AUSTRALIA.

Australia Com.	2,973,000	3,983,000
New Zealand	105,000	816,000
New Guinea Gr.	311,000	700,000
Hawaiian Islands.	6,000	154,000
Other islands	61,000	805,000
South Polar Region	254,000	
Total	3,710,000	6,458,000

UNITED STATES, 1900.

	Area in Sq. Miles.	Population.
Alabama	52,250	1,828,697
Arkansas	53,850	1,311,564
California	158,360	1,485,053
Colorado	103,925	539,700
Connecticut	4,990	908,420
Delaware	2,050	184,735
Florida	58,680	528,542
Georgia	59,475	2,216,331
Idaho	84,800	161,772
Illinois	56,650	4,821,550
Indiana	36,350	2,516,462
Iowa	56,025	2,231,853
Kansas	82,080	1,470,495
Kentucky	40,400	2,147,174
Louisiana	48,720	1,381,625
Maine	33,040	694,466
Maryland	12,210	1,188,044
Massachusetts	8,315	2,805,346
Michigan	58,915	2,420,982
Minnesota	83,365	1,751,394
Mississippi	46,810	1,551,270
Missouri	69,415	3,106,665
Montana	146,080	243,329
Nebraska	77,510	1,066,300
Nevada	110,700	42,335
New Hampshire	9,305	411,588
New Jersey	7,815	1,883,669
New York	49,170	7,268,894
North Carolina	52,250	1,893,810
North Dakota	70,795	319,146
Ohio	41,060	4,157,545
Oregon	96,030	413,536
Pennsylvania	45,215	6,302,115
Rhode Island	1,250	428,556
South Carolina	30,570	1,340,316
South Dakota	7,650	401,570
Tennessee	42,050	2,020,616
Texas	265,780	3,048,710
Utah	84,970	276,749
Vermont	9,565	343,641
Virginia	42,450	1,854,184
Washington	69,180	518,103
West Virginia	24,780	958,800
Wisconsin	56,040	2,069,042
Wyoming	97,890	92,531
Del. and N. Y. bays	720	....
Part Great Lakes	65,177	....
Total States	*2,784,677*	*74,607,225*

Territories (*Main Body*).

Arizona	113,020	122,931
Dist. of Columbia	70	278,718
Indian Ter.	31,400	392,060
New Mexico	122,580	195,310
Oklahoma	39,030	398,331
Total Territories	*306,100*	*1,387,350*
Total main body	*3,090,777*	*75,994,575*

Outlying Territory, etc.

Ter. of Alaska	590,884	63,592
Ter. of Hawaii	6,449	154,001
Porto Rico	3,531	953,243
Philippine Is. ('03)	114,410	7,635,426
Tutuila, etc.	77	6,100
Guam	150	9,000
Wake	1	......
Persons in U. S. service abroad	....	91,219
Total outlying	*715,502*	*8,912,581*
Grand Total	*3,806,279*	*84,907,156*

MOUNTAINS AND PLATEAUS.

	Av. Elev. Feet.
Mount Everest	29,000
Himalaya Mountains	19,000
Andes Mountains	13,000
Caucasus Mountains	10,000
Rocky Mountains	10,000
Atlas Mountains	9,000
Alps Mountains	8,500
East Australian Mountains	5,000
Appalachian Mountains	2,500
Plateau of Tibet	15,000
Plateau of Bolivia	12,500
Rocky Mountain highland —	
in the United States	5,000
in Mexico	7,500
Abyssinian highland	6,500
Plateau of Iran	5,000
Desert of Gobi	3,500
Plateau of Guiana	2,000
Brazilian plateau	2,000

RIVERS AND THEIR BASINS.

	Area of Basin in Sq. Miles.	Length, Miles.
Amazon, S. America	2,320,000	3,400
Amur, Asia	780,000	2,700
Arkansas, U.S.	189,000	2,000
Colorado, U.S.	230,000	1,000
Columbia, N. America	290,000	1,400
Danube, Europe	320,000	1,800
Dnieper, Russia	197,000	1,300
Don, Russia	170,000	1,100
Euphrates, Asia	490,000	2,000
Ganges, India	600,000	1,800
Hoang, Chin. Empire	390,000	2,800
Hudson, U.S.	13,000	300
Indus, Asia	360,000	1,900
Kongo, Africa	1,500,000	2,800
Lena, Siberia	900,000	2,800
Loire, France	47,000	600
Mackenzie, Canada	680,000	2,100
Mekong, Asia	280,000	2,600
Mississippi-Missouri, U.S.	1,250,000	4,200
Mississippi proper	1,250,000	2,600
Missouri	527,000	2,900
Nelson-Saskatchewan, Can.	130,000	1,900
Niger, Africa	1,000,000	2,900
Nile, Africa	1,300,000	3,900
Ob, Asia	1,100,000	3,000
Ohio, U.S.	202,000	1,260
Orange, Africa	270,000	1,200
Orinoco, S. America	370,000	1,500
Plata, S. America	1,250,000	2,500
Rhine, Europe	87,000	810
Rio Grande, N. America	230,000	1,800
St. Lawrence, N. America	565,000	2,100
São Francisco, Brazil	210,000	1,800
Volga, Russia	590,000	2,300
Yangtze, Chin. Empire	690,000	3,100
Yenisei, Asia	1,500,000	3,000
Yukon, N. America	380,000	2,000
Zambezi, Africa	580,000	1,600

POPULATION OF IMPORTANT CITIES.

CITIES IN THE UNITED STATES.

	U. S. Census, 1900.
Albany, N. Y.	94,151
Allegheny, Pa.	129,896
Atlanta, Ga.	89,872
Augusta, Ga.	39,441
Baltimore, Md.	508,957
Birmingham, Ala.	38,415
Boston, Mass.	560,892
Buffalo, N. Y.	352,387
Cambridge, Mass.	91,886
Charleston, S. C.	55,807
Chattanooga, Tenn.	32,490
Chicago, Ill.	1,698,575
Cincinnati, O.	325.902
Cleveland, O.	381,768
Columbus, O.	125,560
Dallas, Tex.	42,638
Dayton, O.	85,333
Denver, Col.	133,859
Des Moines, Ia.	62,139
Detroit, Mich.	285,704
Duluth, Minn.	52,969
Fall River, Mass.	104,863
Galveston, Tex.	37,789
Grand Rapids, Mich.	87,565
Harrisburg, Pa.	50,167
Hartford, Conn.	79,850
Indianapolis, Ind.	169.164
Jacksonville, Fla.	28,429
Jersey City, N. J.	206,433
Kansas City, Kan.	51,418
Kansas City, Mo.	163,752
Lawrence, Mass.	62,559
Lincoln, Neb.	40,169
Little Rock, Ark.	38,307
Los Angeles, Cal.	102,479
Louisville, Ky.	204,731
Lowell, Mass.	94,969
Lynn, Mass.	68,513
Manchester, N. H.	56,987
Memphis, Tenn.	102,320
Milwaukee, Wis.	285,315
Minneapolis, Minn.	202,718
Mobile, Ala.	38,469
Nashville, Tenn.	80,865
Newark, N. J.	246,070
New Bedford, Mass.	62,442
New Haven, Conn.	108,027
New Orleans, La.	287,104
New York, N. Y.	3,437,202
Norfolk, Va.	46,624
Omaha, Neb.	102,555
Paterson, N. J.	105,171
Philadelphia, Pa.	1,293,697
Pittsburg, Pa.	321,616
Portland, Me.	50,154
Portland, Ore.	90,426
Providence, R. I.	175,597
Pueblo, Col.	28,157
Richmond, Va.	85,050
Rochester, N. Y.	162,608
Sacramento, Cal.	29,282
Saginaw, Mich.	42,345
St. Louis, Mo.	575,238
St. Paul, Minn.	163,065
Salt Lake City, Utah.	53,531
San Antonio, Tex.	53,321
San Francisco, Cal.	342,782
Savannah, Ga.	54,244
Scranton, Pa.	102,026
Seattle, Wash.	80,671
Springfield, Ill.	34,159
Springfield, Mass.	62,059
Syracuse, N. Y.	108,374
Tacoma, Wash.	37,714
Toledo, O.	131,822
Topeka, Kan.	33,608
Trenton, N. J.	73,307
Troy, N. Y.	60,651
Washington, D. C.	278,718
Wilmington, Del.	76,508
Wilmington, N. C.	20,976
Worcester, Mass.	118,421

FOREIGN CITIES.

	Latest Census.
Alexandria, Egypt	320,000 ('97)
Amsterdam, Netherlands	531.000 ('01)
Antwerp, Belgium	278,000 ('01)
Athens, Greece	112,000 ('96)
Bangkok, Siam	400,000
Belfast, Ireland	349,000 ('01)
Berlin, Germany	1,889,000 ('00)
Birmingham, England	522,000 ('01)
Bombay, India	776,000 ('01)
Bordeaux, France	258,000 ('01)
Brussels, Belgium	563,000 ('01)
Budapest, Austria-Hungary	732,000 ('00)
Buenos Aires, Argen.	836,000 ('01)
Bukharest, Roumania	282,000 ('99)
Cairo, Egypt	570,000 ('97)
Calcutta, India	1,125,000 ('01)
Canton, China	800,000 ('01)
Cape Town, Cape Col.	51,000 ('91)
Christiania, Norway	228,000 ('00)
Cologne, Germany	373,000 ('00)
Constantinople, Turk.	1,125,000
Copenhagen, Den.	378,000 ('01)
Dublin, Ireland	291,000 ('01)
Edinburgh, Scotland	317,000 ('01)
Glasgow, Scotland	736,000 ('01)
Hague, Netherlands	218,000 ('01)
Hamburg, Germany	706,000 ('00)
Havana, Cuba	236,000 ('99)
Hongkong, Asia	284,000 ('01)
Johannesb'rg, So. Af.	103,000 ('96)
Lisbon, Portugal	357,000 ('00)
Liverpool, England	744,000 ('03)
London, England	4,537,000 ('01)
Lyons, France	459,000 ('01)
Madras, India	509,000 ('01)
Madrid, Spain	540,000 ('00)
Manchester, England	544,000 ('01)
Marseilles, France	491,000 ('01)
Melbourne, Victoria	496,000 ('01)
Mexico, Mexico	345,000 ('00)
Milan, Italy	492,000 ('01)
Montreal, Canada	268,000 ('01)
Moscow, Russia	989,000 ('97)
Naples, Italy	564,000 ('01)
Odessa, Russia	405,000 ('97)
Paris, France	2,714,000 ('01)
Peking, China	1,000,000
Quebec, Canada	69,000 ('01)
Rio de Janeiro, Brazil	750,000 ('00)
Rome, Italy	463,000 ('01)
St. Petersburg, Russia	1,267,000 ('97)
Santiago, Chile	297,000 ('01)
Shanghai, China	620.000 ('01)
Stockholm, Sweden	303,000 ('01)
Sydney, New S. Wales	482,000 ('01)
Tashkend, Rus. Turk.	157,000 ('97)
Teheran, Persia	250,000
Tokyo, Japan	1,440,000 ('98)
Venice, Italy	152,000 ('01)
Vienna, Austria-Hun.	1,675,000 ('00)
Yokohama, Japan	194,000 ('98)
Zurich, Switzerland	153,000 ('01)

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